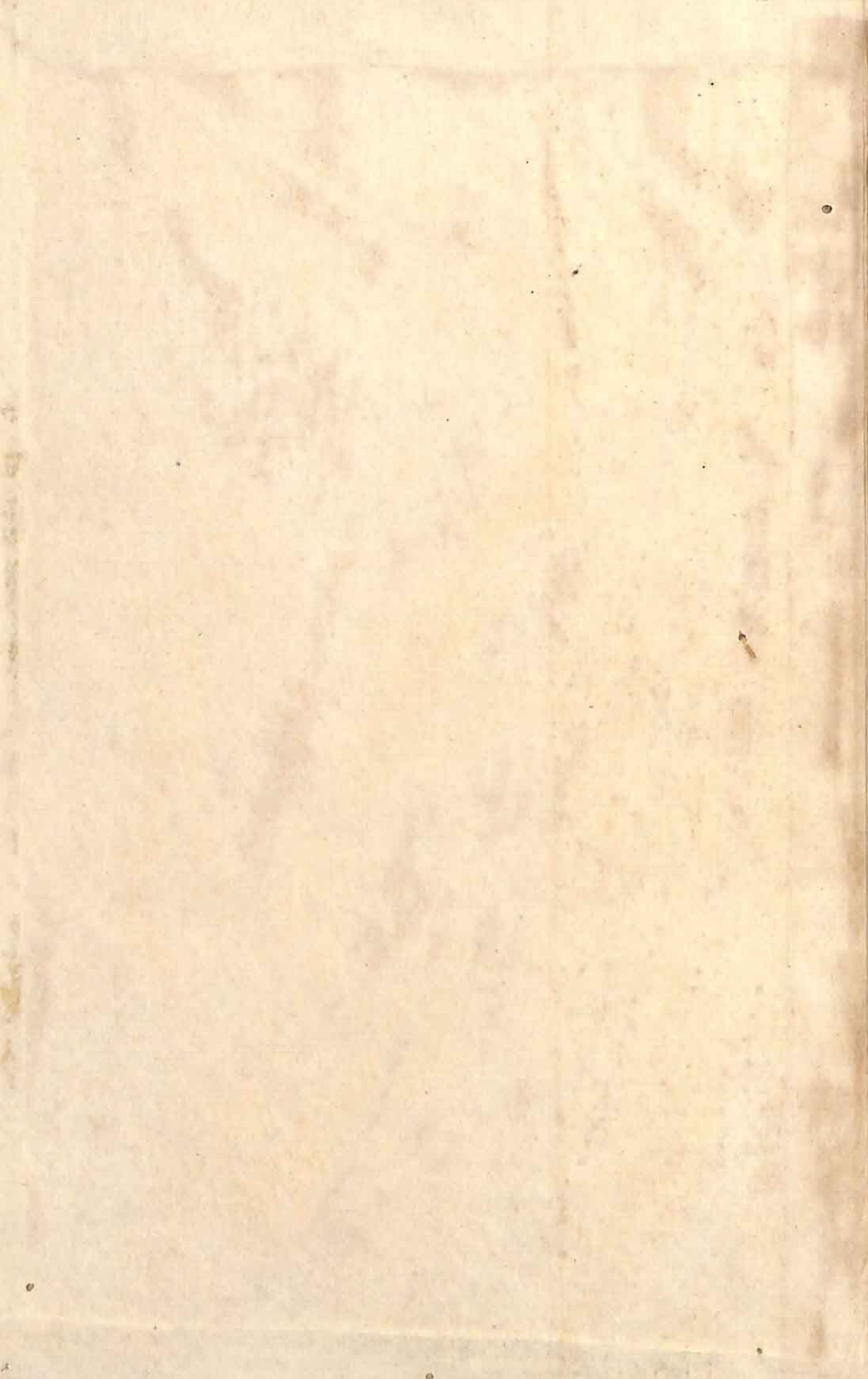


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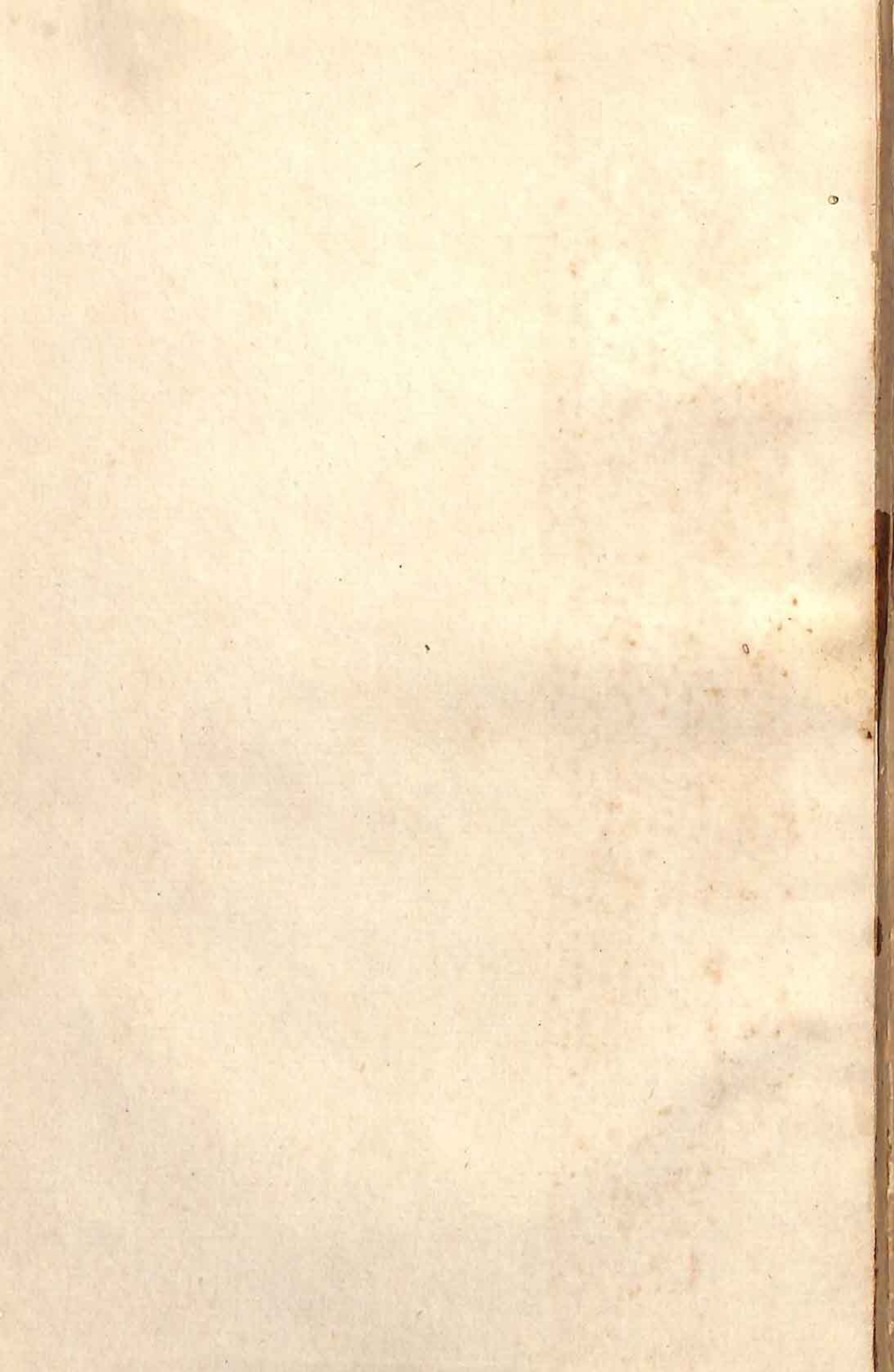
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EDUCATION FOR LEISURE

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CHAPTER A

INTRODUCTION

1 Genesis

The book is based on a series of talks given to the instructresses of the WARP (Women's Air Raid Precaution) Corps of Madras in September 1944. These ladies were engaged in social service work including adult education. Their approach was severely practical. This was a good corrective to my approach. Our interests were helpfully complementary. Their way of talking the talks led to a considerable clarification of the thought simmering in my mind for some years.

11 PUBLICATION

Most of the matter here presented formed part of the *Handbook of reference (for the use of the IWCC)*. It was published by the Government of Madras in 1945. It soon went out of print. But there has been a genuine demand for it all along. Therefore the Indian Adult Education Association brought out the second and the third editions. This fourth edition is now brought out by Asia Publishing House.

12 LECTURE FORM

The lecture-form has been preserved. It helps to conserve the aroma of the experience in the lecture room. The first chapter has been modified. The original setting of the lectures, however, could not be completely altered. The reference to a Government Order in several places is to Order 1622 (Public) of 26 May 1944 issued by the Government of Madras. It transformed the temporary war-time organization of the Women's Air Raid Precaution Corps into a permanent department charged with social service and adult education, and christened Indian Women's Civic Corps.

2 Root Cause of Inefficiency

Reconstruction of life in India is urgent. Reconstruction implies many changes in the political, economic, industrial, social, and educational spheres. The Constituent Assembly had given shape to the political sphere. This had priority. For, this alone could give the necessary sanction for work in every other sphere. However, our political constitution is unable to produce its best result. This is due to the low level of education of the people. The Planning Commission is also active with the design of the changes necessary in the economic and industrial spheres. But, any programme of industrialization and economic revival may be adumbrated. However, its successful working will depend on the information and enlightenment in the rank and file of the workers and the consumers. In other words it will depend on the state of education of the people at large. Social changes have been provided for in the constitution itself in so far as certain anachronistic social practices are concerned ; but social changes cannot be produced by the fiat of law. This is readily conceded. Education alone can help social changes. This too is conceded in theory. But the good or bad effect of the state of education is unfortunately of *deferred manifestation*. This factor blinds politicians. It prevents them from giving priority to adult education. The right approach is not made. Inevitably hampering inefficiency continues to result at every point. This is no doubt resented at the moment by the individuals in charge of affairs. But the resentment of the individuals at different points is never integrated into a whole. It does not, therefore, enable them to trace the root-cause of this inefficiency to lack of right kind of educational facilities for adults.

3 Urgency in India

In the past every country had discovered this lacuna in the organization of their social reconstruction at a later stage. But the lateness of the discovery did not do so much harm to them as it is doing to India

today. India's social reconstruction is beginning at a time when many countries have marched far ahead and the world is being economically knit together into a single unit inspite of the persistence of political barriers. The crash resulting from the neglect of adult education will become much more damaging in India than elsewhere. It is therefore necessary that our statesmen at the helm of affairs should provide for adult education with as much forethought and drive as for industrialization and economic reconstruction. In other words, adult education should have priority in the plane of thought as well as the plane of action. It should not exhaust itself in the mere verbal plane. It should become factual.

4 Factors of Adult Education

Adult education cannot presume full-time adult students. It will have to bank only on the leisure hours of adults. Again adult education cannot depend upon formal teaching. It must be largely self-education with the aid of a network of public libraries within easy reach of every adult. The following pages, therefore, deal with topics such as leisure, books, and libraries, in addition to methods of teaching adults.

5 Towards Adult Literature

During the last few years, the problem of books for adults has been examined by me. The results of the investigation are embodied in the following three books of mine :

- 1 Social bibliography, 1952. (Delhi University Publication Library, Library science series, 4);
- 2 Social education literature, 1952. (Indian Adult Education Association, English series, 5) ;
and
- 3 Library book selection, 1952. (Indian Library Association, English series, 5).

One aspect of the subject was discussed in detail at the third National Seminar of the Indian Adult Education Association, held at Okhla, from 20 to 26

December 1952. The findings will be found in the following book edited by me :

Literature for neo-literates, 1953. (Indian Adult Education Association, English series, 6).

6 Towards Organization

The organization needed to promote adult education in a systematic way has been examined in my Rural adult education, 1949, (Indian Adult Education Association, English series, 2).

It is hoped that one day or other a realistic and constructive work on adult education will begin on a comprehensive scale in our country, instead of spending year after year in platitudes by politicians and report-writing by bureaucrats.

7 Towards Man-Power

The man-power needed for adult education work will have to be found in large measure by harnessing the leisure-time of educated persons with an urge for social service. But the harnessing of this source of man-power and making it yield the best results will need a good technique at various levels. A special squad should be trained to devise, handle, and improve this technique. To speak of adult education, with the mind closed to the production of this special man-power, is nibbling at the problem.

It is hoped that an educational statesman with a fresh, realistic, and farseeing outlook will soon appear amidst us to make adult education a beneficial reality.

8 Conspectus

Chapter B is devoted to a discussion of the term "Social Service" and the enunciation of the normal work of those adopting social service as their profession.

Chapter C expounds a theory of leisure based on three rhythms of life and shows how best the margin of leisure should be filled up.

Chapter D defines education as the life-long process of the unfoldment of personality and defines the

restricted range of the work of those engaged in social service.

Chapter E discusses the educability of the adult, the place of the library in education, and the way in which a course in adult education should be organized.

Chapter F deals with the absence of suitable books in the Indian languages, and the part that those engaged in social service can play in the production and distribution of books by the threefold means of exploration, conservation, and contribution.

Chapter G gives an analysis of the different levels of life and the relation of literacy to the enrichment of life at the different levels.

Chapter H chalks out the curriculum and indicates its scope by giving model lists of books on some subjects.

Chapter J deals with nine methods of teaching available for adult schools.

Chapter K chalks out two sample courses and makes an appeal to Government.

Chapter L recommends the holding of periodical seminars in each district to keep up the spirit of collective thinking among the adults. It gives a detailed account of the seminar technique.

Chapter M gives as an illustrative actuality, a concrete picture of the march of adult education by narrating the experiences of Russia.

Chapter N describes the role of government in the country's set-up for adult education.

Chapter P provides a historical setting and forms the epilogue.

Chapter Q gives a bibliography of books suitable for adult education.

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S R Ranganathan
1 May 1961

CHAPTER B

SOCIAL SERVICE

1 Democracy

The wave of democracy gained appreciable momentum in some countries of the world early in the nineteenth century. This wave had been kept away from India as a result of her political subordination. In spite of it, the wave had been knocking on her during the last few decades.

11 INDEPENDENCE

On 15 August 1947 Mahatma Gandhi's efforts bore fruit. India gained her freedom. The wave of democracy got itself fully established in India. Mahatmaji had been always insisting that independence was not an end in itself. It was only a means to help without any hindrance the blossoming of the personality of every Indian to its fullest size and beauty.

12 RESPONSIBILITY

Independence brought in its train a great responsibility. India is no longer a protected country. Indians can no longer indulge in indolence. India can no longer keep her people ignorant, ill-informed, and idle. India can no longer think of social salvation in terms of the individual alone. It should work for the salvation of the community as a whole. India's progress cannot be measured hereafter by the attainments of the top few capturing the smiles and favours of a foreign, or a home-made, bureaucracy. Indians should realize that it is the last man among them that would set the pace for the fulfilment of India's destiny.

2 Ignorance and Indolence

Apart from the acute distress and disorder brought about by the partition of the country, India's chronic

misery centres round insufficiency of food, clothing, and shelter for her teeming millions. This insufficiency is responsible for poverty, squalor, and disease. These three scourges and the insufficiency of food, clothing, and shelter can be cleared off only by a prior exorcizing of the Demon of Ignorance among the 90% of India's people and the equally venomous Demon of Indolence in the majority of the 10% of her so-called educated people. Indolence of the educated class will continue so long as ignorance prevails among the masses. It is only the fear of competition from those below, and the social pressure generated by the enlightenment of the masses that can make the educated classes dutiful, industrious, and mindful of work-chastity. An intelligent man encouraged by lack of social pressure to continue to be indolent, soon begins to indulge in *talking* about everybody else's work. Thus he not only neglects his own work but even obstructs the work of others. Instead of confining himself to the work allotted to him and doing it to his very best, he allows his mind to spread over all other kinds of work, not for doing them, but to find cheap pleasure in talking ill of them. This unfortunate tendency in the educated few of the India of today must be arrested. It can be arrested only either by the dawn of a higher sense of duty by the grace of God, or by the surging upwards of the masses of the land. Work-chastity will establish itself for the benefit of India — India which has inherited the noblest traditions of chastity personified by the poet in Sita and Rama — only if this unfortunate tendency is arrested by both these factors. We have to pray to God to invoke the first factor. And we have to educate the masses to bring about the second factor. It may look like a paradox that the masses should be educated in order to redeem the classes and establish work-chastity among them. But paradoxes of this kind are not uncommon. They do lead to vicious circles. But vicious circles of this nature can be cut only by the lead given by the statesmen in a community.

3 Sphere of Government

Mahatmaji's insistence on reviving rural life, enlightening the rural folk, and identifying himself with the lowest classes of the people, was really an attempt to cut the vicious circle. The success attained by him in this matter during his life-time had impregnated the masses with enough power to make the foreign ruler withdraw from our land apparently voluntarily. The next achievement of Mahatmaji's raising the level of the masses would have been making the classes practise work-chastity and become industrious enough to help India march towards her destiny of becoming the foremost among the nations of the world. But, alas, the disembodiment of Mahatmaji had occurred before this second objective of his life's work could be realized. But are we to fall in despair? Are we to drift back? Are we to make the masses recede to their original position and thus allow the classes to continue in their ways of indolence and irresponsibility? No, that should not be. That would mean disaster. The statesmen of our country should collectively succeed in doing what Mahatmaji would have done individually, if he had continued to be with us in flesh and blood. What is it that our statesmen should do? They should provide for the uplift and enlightenment of the masses. By the masses we mean those who are below the average level of the community. Indeed one of the results of the advent of democracy in any nation has been that its Government should take the responsibility to lift the masses to a higher level. It is in this sense that we say that democracy has extended the sphere of function of the Government so as to include social service in it. It is the object of this course of lectures to examine what social service means, what place education has in social service, and what relation leisure can have to education. It is also our object to examine the place of books in education and in leisure, and how adults can be helped to educate themselves during leisure hours through books. All these latter stem from the concept of social service. Let us, therefore, begin with

tidying up our idea about this term "Social Service".

4 Charity

Now, what is Social Service? You all feel vaguely what it is. Let us make it exact. Probably "Charity" comes uppermost in your mind as a synonym. But a little thought will show you that social service cannot be equated with charity. For charity is in most cases egocentric. A person dispenses charity to earn merit—PUNYA. In the past it has been mixed with certain religious attitudes. Charity was often practised to earn a happier life after death. There are thousands of inscriptions not only in India, but all through the world, recording endowments for charity. In most cases, if not in all, such documents explicitly express the motive of the donor as something like what I have indicated. In some cases, even if it is not egocentric, charity aims only at giving temporary relief to isolated individuals. It is more concerned with the moment. That is why we find that most of the charities of the olden days had taken the form of providing food and water for the hungry and the thirsty. How many charities have figured as CHATRAMS and TANNIPANDALS! CHATRAM is a centre for the free distribution of food. TANNIPANDAL is a centre for the free distribution of water and butter-milk. The aim of charity has not been to deal with society but with individuals. Even there, it was not concerned with the future. But it was concerned only with the present moment. Accordingly the dictionary defines charity as "liberality to the poor and alms-giving".

5 Delay in Definition

It is not proper to equate "Social Service" with "Charity". The former concept is modern. It is by no means easy to get a satisfactory definition. Indeed the term "Social Service" had not come into use till the present century. In 1912 our brethren of the New World had an institution called the American Association of Social Workers. It appointed a Committee

of Terms to define exactly the terms involved in social work. The first concern was with the term Social Service itself. After several attempts, it had to fall back on definition by enumeration. It had to content itself with a detailed and exhaustive list of every social work activity actually current at the time. The list went on swelling. This definition by enumeration ultimately failed to satisfy the primary canon of definition, *viz.*, that it should be short and potential. There is another significant fact. The volume of the Oxford New English Dictionary containing the word "social" was published in 1919. When I opened that volume for light, to my great astonishment the term "Social Service" did not figure in it. You will grant that the learned and industrious editors of that giant dictionary spared no pains to list exhaustively every word and phrase once current or actually current in the English language. As they had not listed the phrase "Social Service" we may reasonably conclude that the term and the concept behind it had not gained accepted currency in 1919. The attempt to give a definite shape to the concept continued much longer.

6 Attempt at Definition

In 1928 the First International Congress of Social Workers met at Paris. It took a step forward by reducing the long list of social service activities to four major groups:

- 1 Cure and prevention of physical disorder or injury or disease and supply of amenities to those with physical handicaps ;

- 2 Treatment and relief of the criminals and the supply of amenities to criminals in or out of prison ;

- 3 Relief and prevention of poverty and supply of amenities to those with economic handicaps ; and

- 4 Removal of conditions hindering progress in economic life, and aids to personality adjustment.

For brevity we may refer to these four fields of social services as :

- 1 Physical handicap ;

- 2 Mental handicap ;
- 3 Economic handicap ; and
- 4 Personality adjustment.

The last of these really synthesizes everything else.

This effort of the first International Conference went a long way to clear the ground. The term "Social Service" began to denote something definite. As a result of it, when the Supplement to the giant Oxford Dictionary was published in 1933 it included the term "Social Service". But the definition given was still nebulous and vague. It did not clearly separate out the attempt at permanent social amelioration from temporary service to individuals with temporary handicaps. The 1934 edition of Webster's Dictionary made an advance. According to it "Social Service" pertains to a class or classes below or likely to fall below the community standard of well-being. There is also an illustrative list of such classes, the poor, the alien, the neglected, the illiterate, the maladjusted, the sub-normal, the criminal, and the infirm.

61 DEFINITION

Thus social service is an organized attempt to bring up social groups below the community standard to an accepted standard of well-being. The work is to be done through individuals only ; but the main objective is the group. The work incidentally gives immediate relief to the individuals involved ; but the main objective is to do something lasting and enduring for the future of the group served.

7 Intention of the Government Order

We have thus dived deep to find the intention of the Government Order. Understand it clearly. The field of your service when you go back to your stations is not the whole community but only the half of it below the average. Let us call that half the sub-normal part of the community. Negatively, you have little to do with those above the normal.

No doubt you will have to engage yourselves in

temporary relief measures in times of disasters such as fire, famine, pestilence, flood, earthquake, accident, and war. But those will be occasional. Your normal work as permanent officers of the Social Service Corps will be concerned with something continuous and perpetual. It will be turned on the gradual improvement of the sub-normal part of the community, physically, mentally, educationally, economically, culturally, and spiritually. That is what the Government Order expects you to do. That is what the present course aims to fit you for.

8 Scope of the Course

The scheme drawn up for you provides for your learning several subjects. A knowledge of each of them is essential in a social worker. The subjects to be covered are :

- Gardening ;
- Care of animals ;
- First aid ;
- Domestic science ;
- Arts and crafts ;
- Savings ; and
- Investments.

To teach these to the adults, you have first to learn them yourself. There are experts in the several subjects to teach you their contents. My work with you is concerned more with methods — with the technique of teaching — how to teach, when to teach, and what to teach. It is also concerned with follow-up work to ensure that the seed sown, sprouts, develops, grows, blossoms, and bears fruit. These aspects will be covered under the caption “ Education for Leisure.”

We have today cleared up the background against which the subject of my discourse is set. I shall next examine the second of the two terms occurring in the subject assigned to me. I shall discuss with you on the next day “ Leisure ” and its place, implications, and possibilities in the economy of human life.

CHAPTER C

LEISURE

1 Dictionary Definition

On the last day, we defined "Social Service". Before taking up "Education for Leisure" as a form of social service, we shall tidy up our ideas about leisure and its utilization. What is leisure? The dictionary defines it as "period or spell of free or unoccupied time". Free time means time not required for doing certain necessary things. What are the necessary things with which most of our time has to be occupied? We must look for them at different levels and in different intervals or periods of time.

2 Three Rhythms

We are all creatures of the earth. The moon and the sun come next to earth in their influence on us. We are creatures of them also. The earth is the source of the material of our body. The earth determines the primary period of time — the day. The moon determines another natural period — the month. The apparent oscillation of the sun from Cancer to Capricorn and back, determines another important period of time — the year. Our primary rhythm is the one pertaining to the body. It is, therefore, the one determined by the earth. Its period is one DAY. There is a physiological rhythm corresponding to the moon. Its period is one MONTH. The sun is the source of all energy and life on earth. Its apparent oscillation on the ecliptic gives rise to another important rhythm of nature. Its period is one YEAR.

Let us then look for the rhythm of leisure in terms of the day, the month, and the year.

21 DAILY LEISURE

Each day we have to occupy ourselves during most



of the hours in certain unavoidable ways. The bodily rhythm compels us to sleep and rest for at least eight hours a day. Children may have to do it longer. But it is found that an average adult must give up eight hours in this way. This is a physical necessity. Most of us have also to spend about eight to ten hours in house-keeping or in bread-winning work. This is an economic necessity. We have also to spend some hours in bath, food, exercise, and relaxation. This is a hygienic necessity. We must also spend a short period in prayer, contemplation, and communion. This is a spiritual necessity. Thus most of the day is occupied in unavoidable ways. The only elastic slice is the one devoted to bread-winning work. Society attempts to reduce that slice as much as possible and release some free interval or leisure.

22 MONTHLY LEISURE

In most societies the days of full moon and new moon or the neighbouring days had been free days in the past.

23 ANNUAL LEISURE

Before the advent of industrialization and the consequent urbanization, the months when nature was fallow or was in incubation had been free months.

24 PRESENT DISTRIBUTION OF LEISURE

This close correlation of leisure with nature has been thwarted in modern times. The present distribution of leisure is mostly artificial. The necessity to keep the industrial plants go on all through the year has led to an undue emphasis on a weekly period which has no correspondence with nature. In urban areas, the monthly quota of leisure has disappeared. The annual quota has been staggered artificially. Different persons have to have their shares at different times. In some professions, even the daily quota has been similarly staggered. Even rural areas are being influenced appreciably by this tendency to an artificial

and differential distribution or staggering of leisure.

3 Use of Leisure

31 OLD METHODS OF USING LEISURE

The very efficient utilization of leisure stabilized through centuries of folkways has now been rendered unavailable. This outmoded utilization was of the group variety. It may be described as socialization of leisure. Those were days of mass illiteracy. The leisure was, therefore, transformed by some folk institutions, not demanding literacy, into periods of intellectual, social, and spiritual enrichment. The holy days were days of religious, social and family festivals. They did not connote mere intervals in work. They involved a concerted expansion of life. It is significant that in the East Coast, for example, the fallow months — April to June — were declared the most auspicious months for festivals — private and public. Similarly the Dasara festival and the associated reinvigoration of the people by athletic, intellectual, and spiritual practices, and by the tabooing of the routine pursuit of one's vocation, even to the point of the suspension of needle-work, for example, had filled up a natural interregnum in the progress of cultivation. It filled it in an organic way. As the whole community had the leisure at the same time, it was spent on the rewinding of the individuals and the community as a pleasurable group project.

32 THE ARID TRANSITION

Such festivals are dying out, with the coming in of the industrial era. Society, however, remembered that the rhythms in life had been useful and invigorating. Therefore, while other effects, which were far too imponderable and subtle though more potent, went unprovided for, periodical intervals in work were reintroduced, though no longer as festivals and holy days. Significantly they are called bank holidays when shared by all, and privilege leave when shared severally. Thus they were made part of economic organization and got severed from the 'whole life' of the community.

An efficient and stable way of utilizing the leisure, thus newly distributed, has not yet been evolved. Western countries, in which this phase began about a century ago, have been experimenting in various ways. India, which is entering this phase only in the present generation, can put that experience to use and shorten her period of arid transition. So much for fundamentals and past history.

4 Organization of Leisure

Let us next examine how we should set about to organize the occupation for leisure time as we have it today.

41 A CONTRADICTION EXPLAINED

There is a flaw in the dictionary definition. This must first be removed. It describes leisure as "period or spell of free or unoccupied time". It might seem at first that the planning and organization of leisure and its forced occupation by the social service workers were a contradiction in terms. The contradiction rests partly on the use of the bare epithet "unoccupied" in the definition. In reality "unoccupied" means as we stated at the beginning "unoccupied with work forced by physical, economic, hygienic, or spiritual necessities". If this is remembered, part of the contradiction disappears. Nor can it be said that the butting in of social service workers detracts from the freedom of the leisure hour. The play of children loses nothing of its freshness and spontaneity when guided into organized games by judicious and unobtrusive suggestion and leadership. So also the leisure of adults, below the community standard, may gain from the guidance of social workers. They are there to foster corporate life and atmosphere. These will enhance and reinforce individual effort. There is one moral however. Over-organization will defeat its own ends. We must guard against it.

42 DANGERS OF UNOCCUPIED LEISURE

Let us remember then that leisure is not strictly unoccupied time. There can be no such time. Remember the rapturous strains of Saint Thayumanavar. "It is hardly possible to have any moment of our life unoccupied." Leisure must be occupied. It may be occupied fruitfully or it may be mis-spent licentiously. Unharnessed leisure will eat us away. It will burn us. Beware of the dangers of unorganized, uncontrolled, and unoccupied leisure. There are many demons to seize it. Through it they will seize us also and ruin us. Let me mention one such demon, idle gossip, the very degeneration of the art of conversation. I need not multiply examples. I would ask you to make a list of them yourself. "The soul is dyed the colour of its leisure thoughts" said Dean Inge. "How to live on twenty-hours a day" has been the theme of a book written by Arnold Bennett in 1933.

5 State and Leisure

Arrangement and enjoyment of leisure is really an art. It needs careful thought and preparation. The art of life, indeed, consists largely in the capacity to spend wisely and happily the hours in which we are most free — free from the demands and behests of others, free from the demands of relaxation and hygiene — free to plan our activities in and at our own time. To waste these moments is to waste something extraordinarily precious. One of the most horrible and insensate forms of cruelty is "killing time". It is a most vital concern for organized society — for the State — that the leisure of its citizens shall be wisely spent. Change the character of a nation's leisure and a corresponding change in its culture and efficiency is bound to follow.

51 LEISURE AS FIELD FOR SOCIAL SERVICE

Education for leisure is, therefore, not only a legitimate but a vital form of social service. The most dangerous and devitalizing cancer in the lower half of a community

is that which manifests itself as wasting of leisure. To remove it and thereby raise the standard of their life should be the first charge on the attention of social service workers.

6 Theory of Leisure

61 HOBBY-BOGEY

There is a wrong notion which got generated when the global leisure-cum-labour life of agrarian civilization was replaced by modern industrial life.

It is represented by the term "hobby". It is defined usually as "favourite subject or occupation that is not one's main business". It is the fashion of half-baked scholars to say, "You must have a hobby for your leisure". This coupling of "hobby" with "leisure" makes leisure as unreal and unserviceable as the "horse" to which "hobby" is prefixed. To say that one's occupation during his leisure should be different from one's main business — that is to say — that you must embrace at leisure something different from what you did at work, suggests a vulgar word which I do not wish to pronounce. If my main business is looking after libraries, organizing them, and furthering their use, I should not find delight in communion with Library Science during my free time! Is it? If my main business is doctoring, I am not free to use my free time to dive deeper into the realm of Medical Science! Is it? If my main business is to expound law, I should not carry into my free time the rhythm developed in court and find delight in riding on its crest, as it were, and getting at the most subtle and fundamental reaches of Jurisprudence! Is it? No, no. This is atrocious. This is inhuman. This is imputing to all an aversion towards one's vocation, which developed with the monotony — the dehumanizing monotony — of the repetitive job which capitalistic avarice has perpetrated in the name of efficiency. The irony is that it has spread like infection and blinded even those who are not put on such maddening mechanical repetitive jobs.

62 THE HAPPY MAN

No. This theory of leisure is wrong. Man has to do some work in three contexts : To earn his livelihood, to fill his leisure, and to give a chance to the creative urge in him. The happiest man is he for whom the same work appears in different phases in all the three contexts : At the office or the factory, he does the work in a prescribed way, as a routine ; at leisure, he exercises his freedom in varying it as he pleases, in doing it in different ways, in experimenting with it and in improving it ; this continued attention, both under the behest of somebody and in his free individualistic way, begins to occupy his personality ; he works it, hobbies it, sleeps it, coaxes it, and lives it ; thus he does all he can for the creative ferment to set in. If his creative urge also gravitates towards the same work, one day or other he creates, that is, reaches the moment that contains all eternity as William Blake would put it. That is the realization of his life.

63 THE MISERY OF MANY

How miserable is the man, for example, who has to unwind red-tape to earn his bread, emulate a gardener during leisure, and meditate on the invention of a universal lathe to give vent to his creative impulse. All honour to him who can find happiness in such circumstances. But there is no doubt that he is not as fortunate as one who has merely to change over from one phase to another of his loyalty to one and the same subject. The misery of many is at bottom due to divided loyalty at work, leisure, and creative moments. It is not unfortunately, within one's choice in modern society to choose that career in which he feels the pull of creative urge. But many can minimize misery by filling their free time consistently not with a third kind of work but with the one or the other of these two—preferably with the work used for bread winning unless one is able to recognize and is sure of one's field of creative work.

7 Margin of Leisure

Let me put it in another way. We often speak of the margin of leisure. As a librarian this reminds me of the wide and narrow margin of a piece of writing on the page of a book. Often, also, there is little or no margin in which to write in books produced by machines under the paper-controller's injunctions during war-time scarcity. But when the margin is wide what do we do with it? Sometimes, when the print is fine and the matter is irreproachable, the margin is left white and clean save for a few remarks of personal appreciation and corroboration. Sometimes, as in the exercise books that we have to read, the margin must be filled with corrections in blue pencil and red ink. We have to do similarly if the text of the printed books is faulty, one-sided, or poor. So when the daily text of life is poor and mean, the margin of leisure must be to correct and re-adjust it.

71 IDEAL USE OF LEISURE

But the ideal is symbolized by the illuminated books of Middle Ages that belong to the days before the age of the machine. The big black letters of the small space of text are surrounded by beautiful and delicate pictures and decorations — brightly coloured scrolls and leaves and flowers or landscapes and portraits that illustrate and illumine the text. And in Utopia, in RAMA RAJYA, as we would call it, the margin of leisure will be wide and full of beauty, if indeed the text and the margin are distinguishable, and a man's leisure will illuminate and illustrate his work. For work and play, industry and art, will have come together. Leisure will complete the life of work and work will complete the life of leisure. Till then we must prize what margin of leisure is vouchsafed for the masses and help them to fill it in an organic way. Thus education for leisure and the enrichment of adult life form no light educational activity; it is no peripheral problem; nor is it an incidental task. It is rather a fundamental problem, affecting the welfare of society and its prosperity, and as such

should receive major consideration. That shows the far-reaching statesmanship behind the Government Order setting up a permanent staff and department for it. That also shows the wisdom behind your Commandant's choice of the subject of my discourse: Education for Leisure.

CHAPTER D

EDUCATION

0 Introduction

In the course assigned to my care, we have to pursue "Education for Leisure". What does this title mean? Is it education to be had during leisure? Or is it education in the art of using leisure? From the theory of leisure we have expounded on the last day, you will find that these two aspects soon merge into one another. It will be even more so when we understand "education" as organically as we tried to understand "leisure". We need not, therefore, ask the Commandant to elucidate it for us. Let us, then, proceed straightaway to tidy up our idea about education.

1 A Process

Education is the process of one's becoming oneself. It is the process of the development of one's personality towards its fullness. It is the kinetic phase of one's existence as a human being. It is the phase over which SAKTI, the Mother presides — the power that transforms, enlivens, and releases creation. Sri Aurobindo has shown us in his *Mother* [1] that the form of the Mother which is most potent in education is, according to Indian tradition, Mahasaraswati — the Mother's power of Work and her Spirit of Perfection and Order. As Maheswari, She lays down the large lines of world forces. As Mahakali, She drives their energy and impetus. As Mahalakshmi, She discovers their rhythms and measures. As Mahasaraswati, the Mother presides over their details of organization and execution, relations of parts, effective combination of forces, and unfailing exactitude of result and fulfilment.

2 Triangle of Forces

In the process of education one seeks to become

oneself under a triangle of truly inexorable forces :

1 The psychogenetic force which the soul carries with it from embodiment to embodiment and which gets enriched and progressively sublimated in the onward march in its own evolution. In our tradition, it is the force of VASANA OR PRARABDHA ;

2 The biological force inherited from ancestors and transmitted through the body including the glands, the cells, and the gene in particular, now believed to be the most effective part of the body in transmitting biological force. In our tradition, it is the force of SARIRA-PARAMPARA ; and

3 The environmental force, including that of the physical, the psychic, and the social environment. In our tradition, it is the force of VATAVARANA.

21 VASANA OR PRARABDHA

or

PSYCHOGENETIC FORCE

The first of these forces is not amenable to the so-called scientific measurement and manipulation ; it is too subtle ; its very existence is questioned in orthodox educated cloisters ; at best it is branded as something belonging to the occult. But Indian tradition is alive to it. *The adepts recognize and isolate it.* But even they often declare it to be hardly within the reach of manipulation. As social service workers, therefore, you will have little chance to manipulate it in helping the education of anybody — unless you are a super-adept !

22 SARIRA-PARAMPARA

or

BIOLOGICAL FORCE

The biological force has already been recognized by orthodox science ; it is being subjected to experimental study ; during the last few years it is even claimed to have succeeded in manipulating and modifying it by X-ray irradiation — not in men but at least in the Banana fly, which has become notorious as the quisling which has betrayed the biological force by

succumbing to the onslaughts of science. But I do not know how long it will take for science to reach man in this expedition. No doubt, nuclear engineers are able to release very hard radiation. This is known to damage man. But it is not known when it can be used at our will and under our control to manipulate the biological force beneficially and thereby help the development of personality and education. Even when that time comes, however, this operation will be entrusted to an expert of another kind — a kind of super-eugenist. And so, as social service workers you may not at any time, and certainly you will not now, have to manipulate it in helping the education of anybody.

23 REDUCED FIELD OF VATAVARANA OR ENVIRONMENT

This reduces the field of educational agency to only one of the forces of the triangle — the force of the environment. The environment is adjustable within certain limits. The teacher's part in the process of education consists in that adjustment, remembering that she herself is a vital element in it. Let us now analyse this process.

24 INDIVIDUALITY

Individuality is the term used to denote the resultant of psychogenetic and biological forces in an individual. Let us see how the individuality of a learner and his environment — including the physical, psychic, social, institutional, and curricular parts of it — act and react and result in the growth of personality — in its unfoldment and fulfilment.

3 Personality

For this purpose we must devote some thought to the term "personality". Personality is strictly unanalysable. We can only deal with it as a whole at the stage of action. But prior to action, it will be helpful to mentally analyse it into its constituents. This will help us to plan our action properly. Personality

is a synthesis of body, mind, and soul. It is an integral of them.

31 BODY

The furtherance of the growth of the body demands nutrition, personal hygiene, and public health arrangement, of the right sort. These factors lie largely outside the jurisdiction of the educator. But she has two responsibilities of a restricted but by no means less vital nature. In the first place, she must ensure these factors in proper measure in the adult school itself.

311 Nutrition

The modern school, therefore, goes to the extent of providing a meal. The Butler Act of the United Kingdom virtually transferred this responsibility from the Ministry of Health to the Board of Education. It may not be easy for you, except by soliciting private philanthropy, to take up responsibility for this in the immediate future. We occasionally see a ridiculous result of the attempt to solicit private philanthropy for mid-day meals in schools. The school's attention is almost totally spent away on this work. This attracts praise from the educational chiefs. It gains a premium of publicity. Education proper is neglected. This is like spending away everything on the scaffolding and leaving little for the house proper. But one thing you must not do : You should not conduct your classes for adults except when they are free from hunger.

312 Hygiene

Again hygiene teaches us about bodily rhythm — about exhaustion and rest. You must bear in mind the daily work of the adults coming to your school. Remember in particular that the educational use of leisure is bound to depend on the condition of work. Remember : Not only is the amount of time available for leisure determined by the time spent in work, but also the amount of energy available for leisure is determined by the amount of energy absorbed in the work.

It often happens that the mind gets relaxed earlier than the body. The interval between their relaxation should not be counted as strict leisure. It must still be assigned to the period of relaxation. It is used not in sleep but in amusements, entertainments like cinema or fiction-reading. Educational work should not be attempted in such intervals. Let me read to you from the evidence of a working class student before the Adult Education Committee of the Ministry of Reconstruction. He said, "Physical exhaustion has usually reached a point where no advantage can be taken of educational opportunities". Hence the familiar tendency of the labourer to resort to amusements that titillate. At the same time it must be remembered that under this guise, "Low-brow" tastes often entice and ruin many poor workers. It requires considerable insight, sympathy and skill to distinguish cases of genuine exhaustion from those of set habit or imitation.

313 Approach through Mind

Apart from these factors of the moment, the furtherance of the growth of the body can be indirectly helped by the adult school by educating the minds of the masses, by giving them correct information on nutrition, hygiene, and public health and by inducing in them the right attitude towards these. I find from your programme that you are yourself now taking a course in some aspects of these subjects with the help of appropriate experts. In my course, I have merely to say, "Transmit that knowledge in small, pleasurable, absorbable doses to the masses in the adult schools you conduct".

32 SOUL

The furtherance of growth in so far as the soul is concerned is even more elusive. The soul eludes all. All that you can do is to attempt to reach it through the mind — not a very easy task, nor an effective one. You can at best disseminate among the masses information about great souls — realized souls, saints, prophets, founders of religion, seers and rishis. But do not mistake

the teaching of creeds and rituals for this sublime work. Creeds and rituals are methods crystallized for the purpose suited to certain cultural conditions. They often have a nucleus of vital everlasting value. But this nucleal element is soon coated with an impenetrable incrustation. The more they overstay their time, the more opaque becomes the crust. While the nucleal element in its pristine state is virtually the same in all systems of creeds and rituals, the incrustation hides this identity or similarity and sets up one system against another. Whether the observance of the creeds and rituals result in ultimate sublimation or not, they often produce the very opposite result in the immediate present. What an amount of misery the world has suffered by war between creeds !

321 Religious Instruction

At the same time, the masses cannot reach the road to sublimation without creeds and rituals — without the practice of an organized historic religion. This dilemma must be solved. My suggestion to you will be this : If you have a homogeneous class you have no difficulty. Otherwise, if it is practicable, divide them into homogeneous sub-groups and entrust the teaching of the several religions to those who practise them. If this be not practicable, do not attempt it. Be satisfied with interesting the students in the lives of great souls. Remember also that your own way of life can go a long way in tuning the masses towards the sublime.

33 MIND

Lastly we come to the growth of the mind. I use the word ' mind ' to denote the integrated whole of :

- | | |
|--------------------|------------------------|
| 1 primary senses ; | 4 emotion ; and provi- |
| 2 memory ; | sionally |
| 3 intellect ; | 5 intuition. |

Education implies the development of each of these. An agency of education must help :

- | | |
|----------------------------|-------------------------|
| 1 to sharpen the sense ; | 4 to refine emotion ; |
| 2 to enrich memory ; | and |
| 3 to cultivate intellect ; | 5 to release intuition. |

4 Innate Urge

The urge for education in this limited sense is inherent in everybody to a greater or smaller degree. The business of an agency for education is only to intensify it, and to provide facilities for it to express itself. It is not anything more than that. If this be not remembered, harmful indoctrination and other forms of damage would result. It is to emphasize this warning that Townshend said :

To you it is as if a child were an empty vessel, into which to pour perfection, to make a perfect man. But a child is the product of universal energy, able to evolve itself, growing up into life.

If, therefore, you allow children to form into perfect vessels, strong, beautiful, happy, healthy, in harmony with life,

There shall freely grow within them, a part of the spirit of all things, which is, in itself, perfection and truth.

But if you seek to mould and to form children, You will but succeed in warping the vessel which life has made for itself ; and so restrict life's growth.[2]

So also is this fundamental idea emphasized by a Syrian poet :

Your children are not your children ;
They are the sons and daughters
Of life's longing for itself.[3]

5 Forces on Education

51 MOTIVE FORCE

We shall next spend some thought on the force associated with this innate urge for mental development — the motive and the formative forces in particular. The motive force centres round *interest*. Not satisfied with the capacity of this word to express the full potency of the motive force, Einstein improvised the phrase *Divine curiosity*. [4] Our tradition has a charming word

for it. It is PREMA that pools the dynamic and creative impulses in an individual and initiates the process of global experience which results in education.

52 FORMATIVE FORCE

The formative force that shapes is that of *imitation*. It is claimed that the biggest single force that shapes education is that of *imitation*. Tarde would even go to the extent of saying that Education *minus* Imitation and its kick-back of Counter-Imitation is zero. He has written a compendious treatise[5] in support of this.

53 IMITATION

A little reflection will show you that there is much truth in the statement of Tarde, though there appears to be an element of wanton exaggeration introduced for emphasis. Think back about the way in which the mind of your child has developed. Its use of the primary senses, its motor functions, and its power of speech are all products of imitation. It imitates the parents in storing the sense impressions in its memory and recalling them when wanted. The development of its intellect and emotions is so much influenced by its imitating the parents. Mothers know what adepts children are in imitating the father not only in mode of walk and in style of address but also in arguing with the mother and, shall I say in getting angry with her! How often have you not had to plead with your husbands, "Do not hereafter correct me or chide me in his presence. When you are away, he multiplies them all tenfold and turns them on me. Poor thing! How can he help imitating you?" Reciprocally, your husbands too have to plead with you similarly!

Most of one's skill, most of the vocabulary, and most of the modes of reasoning are learned by imitation.

54 COUNTER-IMITATION

A voice : What about discovery and invention?

Tarde would explain them by the kick-back of Counter-Imitation.

541 C V RAMAN

Let me illustrate. You all know the name of the great Indian Scientist who is our contemporary and who, we are proud to say, belongs to our own State.

Voices : Sir C V Raman.

Yes. Let me narrate to you a recorded anecdote. You know that he is a genius. He was precocious as a child. He finished his degree course at the age when one would still be in the fifth form. He joined the physics branch of a local college. Early in the term, the class was asked to perform Melde's experiment. You know that practical work in a laboratory is carefully guided imitation. The professor demonstrates. He furnishes you with detailed instructions. And then you repeat his demonstration. Most of us learn about wave-motion by faithfully imitating Melde's experiment. Put in general terms the experiment consists in tying up a rope at one end, holding it by the other end so that it is straight and horizontal, then jerking it, and so on. This little under-aged child, who had come to sit with the adolescents of the B A class, can only counter-imitate. He refused to hold the rope horizontally but would only hold it inclined to the horizontal at 30 degrees, 60 degrees, and so on. The professor, it has been reported, was angry with him. But it is this kick-back from imitation that has made Raman what he is. It is Counter-Imitation that figures most in inventions and discoveries.

A voice : Is there nothing else ? Can all genius be explained away like this ?

6 Vasana

There is another kind of explanation for another kind of genius. What I called VASANA or PRARABDHA at the beginning may have to be invoked to explain some cases. As you are all Indians in whom the VASANA idea is so well ingrained, I did not give concrete illustrations.

A voice : At least one illustration will be of help.

61 S RAMANUJAN

Let me then recall to your mind another genius who, alas, died prematurely — the first Indian of our times to become a Fellow of the Royal Society, one who was elected at the very first proposal though he was still below 30 — the youngest F R S — one who has been often referred to as the Newton of the present century — one who was born in our midst.

Voices : Ramanujan.

Yes. You are right. I was a student in the Honours Class when Ramanujan was being discovered. I remember one incident. My own professor, Edward B Ross, was a great mathematician and I was the only student in the class that year and so we were moving more intimately than usual. One day he asked me if Ramanujan knew Polish. I said that he did not know any European language except English. But my professor remarked, "Even if he knew Polish, it would not have mattered". I asked him what he had in mind. He said, "Here is a paper that Ramajunan completed a few months ago. We in Madras find it beyond our capacity. Everything is so new — the notation, the conception, the method — everything is new. No book has anything like this. A Polish periodical I received today has an article coming near it. But it is far less developed than Ramanujan's paper. Moreover, this is the first copy of it to reach India. Even otherwise it is later in date than Ramanujan's paper." "What is his father?", he asked. You too may ask that question to know if he had inherited mathematical ability. But no. His father was a petty clerk in a cloth-merchant's shop. None in his family is known to have been just more than literate. None in India had the mathematical power whom Ramanujan could have imitated. Thus imitation is ruled out. Counter-Imitation too is ruled out. Heredity is ruled out. By elimination, you have to fall back on VASANA or PRARABDHA for an explanation, or simply say that he was a freak of nature — which is no explanation at all.

62 RAJANARAYANAN

I have within my experience another instance. I was teaching Mathematics in the Presidency College. At that time Sir K Srinivasa Ayyangar was a member of the Executive Council of the Government of Madras. He was also the Vice-Chancellor of the University of Madras. He spotted out a child of 12 years, unusually precocious in Mathematics. His father was below normal in Mathematics. He was Revenue Inspector in some place in the Madura district. Sir K Srinivasa Ayyangar had this child admitted as a special student in the Presidency College. He used to attend the Honours Classes. The day on which he was brought to the College, I took him to my room. Askwith's *Pure geometry* was on my table. The child played with its pages. Suddenly I found him totally absorbed in some figures of conic sections in that book. After he got released from that absorption, I said to him, "Rajanarayanan, do you know these curves! Have you read about them?" "No", he replied, "This is the first time I see them. They are so interesting". Then he closed his eyes for a few minutes and then said, "I recognize them. I remember them." Where has he seen them! God alone knows. I satisfied myself that no book on conic section had ever migrated as far as the rural district in which he had been all along. He remembered them! Imagine! Can it be VASANA? I don't know. VASANA does not make the soul remember details. So far as I have heard, it only carries forward subtle attitudes — essences, fragrance as the etymology of the word shows — and not details of knowledge like shapes of conic sections.

A voice : Where is he now?

He is now in the I C S somewhere in Upper India. He has changed his name and so you cannot easily spot him out and embarrass him with your attention!

7 Restricted Range

I allowed myself to be side-tracked into these fascinating instances, just for one reason — to impress on you once again that your sphere as social service

workers will not include such geniuses — who grow under the influence of Counter-Imitation and VASANA. They will look after themselves. If at all, we can only spoil them ! Probably we cannot even do that. For as it has been said, a genius will sprout even in a dung-hill.

We are now concerned not with methods of dealing with geniuses, or even those above the average, but only with the adults below the average. On the next day we shall try to apply these ideas about education to adult education.

CHAPTER E

ADULT EDUCATION

0 Introduction

Remember, how we have restricted our present concern to the development of just one element in personality — the mind. It is in this restricted sense that we shall consider Adult Education today. A doubt has been raised by some people whether adults can learn — whether they are educable at all? It is better that we examine this question at the outset.

1 Educability of the Adult

11 PRIMARY SENSES

The primary senses are sharpest in infancy, say till the tenth year. How unerringly our children spot out their uncles in a distant crowd and embarrass us to confess that we could not see them. How precisely their ears function in distinguishing the hoot of the different cars in the neighbourhood — they all sound alike to some of us. How marvellous and how quick is their ability to name an aeroplane from its throttle and look. Our inability makes us stand amazed at their sharpness.

12 MEMORY

Memory is most capacious and most obliging in later childhood till about 16. Did we not repeat our Sinclair's *History* and Duncan's *Geography* from cover to cover? How many cantos of KIRTANS (songs) and dramas, how many lyrics, how many formulæ and how many dates the children carry in their memory! The way in which memory fails us makes us stand amazed at the ease with which they learn by heart such a lot of stuff.

13 INTELLECT

Intellect is best cultivated at adolescence and till

about 25. That is why that, except in the case of the few who are slow to mature, the best fruits of cultivation of intellect are borne before the thirtieth year is reached. Newton, Abel, Galois, Gauss, Ramanujan, and many others are well-known examples.

14 INTUITION

Intuition is known to be notoriously erratic. In Shambandar it got released at 3. In Appar it got released at 50. In Sankara it got released at 7. In Pattinattar it did not flair up till after middle age. The inner light blazed forth in Christ and Buddha at the threshold of adolescence. It was delayed till about the fortieth year in Muhammad. In Ramana-rishi intuition began to function when he was at school; in Sri Aurobindo it waited till he had been in service for some years.

15 ILLUSION OF PEAK PERIODS

Disregarding intuition and emotions, there are definitely recognizable peak periods associated with the primary senses, memory, and intellect. These peak periods are definite ; they impress and dazzle one, so to speak ; with the result, a doubt arises in popular mind about education in respect of them being possible at all in adult age. Is not adult education a contradiction in terms, it is asked.

16 THORNDIKE'S FINDINGS

Vague impressions and ex-cathedra opinions cannot settle this issue. E L Thorndike, the well-known psychologist of America, therefore, set up the only reliable method of solution. With some associates, he took up an experimental, observational, and statistical study of the question. Attention was first confined to the age interval 25-45. Here are some of his findings.

"In general nobody under forty-five should restrain himself from trying to learn anything because of a belief or a fear that he is too old to be able to learn it. Nor should he use that fear as an excuse for not learning

anything which he ought to learn. If he fails in learning it, inability due directly to age will very rarely, if ever, be the reason." He must have always lacked the capacity. His desire to learn may not be strong enough to give proper attention to it. Or his method may be faulty. "We can learn nearly as well when young as when older." "Public welfare depends as truly on who goes to school after fifteen as on how many go to school till fifteen." [6]

It must be remembered that the upper limit 45 in the findings is only provisional. The study has been, I believe, extended to still higher age-levels. When completed the findings are expected to push the upper limit very much farther.

These findings should once for all silence the cynic and the sceptic, who derides adult education and who has perhaps already turned his attention to this venture of yours.

But ability to learn is not the same either with desire to learn or with facility to learn. Let us, therefore, devote our thought to these two aspects of adult education.

2 Desire to Learn

21 PREMA

The desire to learn is to derive from the motive force for education which we examined on the last day. It is, you remember, PREMA. It is well-known that the field of interest gradually shrinks as one advances in age. This shrinkage is due to various causes — external, internal and economic. The field of interest is widest in infancy and childhood. It would be a good exercise for you to keep an exhaustive record of all the questions your child asks, say, from its third to the twelfth year. I think nobody has done it for Indian children. I attempted to do it. But it soon fell through. But you can all recall enough to vote with me when I say that there is nothing under the sun which escapes the child's curiosity to know, be it natural or artificial, be it concrete or abstract, or be it real or imaginary, or be it of the

past, present, or future. This cannot be denied.

22 SUPPRESSION

I am sure you will also recall to mind not a few occasions when you were unable to answer their questions, when you were unable or unwilling to give them facilities to find out the answers for themselves, and, alas, also the not negligible number of occasions when you slighted them by ignoring their questions and perhaps silenced them with your fist or fit of temper. The fact is, the career of a child is unfortunately one of a series of suppressions — suppression at home, suppression at play, and suppression, alas, of the worst kind at school. If by the time we enter adulthood, there is still some curiosity left in us, there is some chance for a field of interest to develop.

23 RELEASE

As social service workers you will have to face the worst of this. For the effect of suppression is most fatal in the lower half of the community. The resilience of the above-average will preserve in them an appreciable amount of curiosity. But the scotching becomes easily complete in the below-average. You have, therefore, much uphill work to do in the earlier stages.

24 PATIENCE AND LOVE

You must, therefore, have abundance of patience. It is only love of work and, more than that, love of the masses that can give you the necessary patience. As mothers you know to what depths of patience you descend unawares in handling a dull child, an impertinent child, or a sickly child. Indeed our poets often compare you to mother earth in patience. And so you are not new to patience. You are not new to love either. In dealing with your own children, however, you are helped by hormones. In this case, that bio-chemical help will be denied. But as intelligent and sincere souls you must by effort of will transfer your capacity for love and patience, to the masses you have come forward

to enliven and ennoble, to energize and elevate.

25 PSYCHO-ANALYSIS

Remember in this connexion that the reaction between hormones and will is reversible. If hormones endow you with dogged will in serving your children, the will to serve the masses can release the necessary hormones to help you forward. Having thus developed the right emotional attitude in you, you must acquire — you will soon acquire it by practice — skill in psycho-analysis. As you will have to do with sub-normals, it is necessary in any case that you must read up some literature in psycho-analysis to give direction to and to intensify the power already inherent in you to some degree. Freud, Adler, and Jung are the great names in the field. But there are also more elementary books. By psycho-analytical methods, you must gently remove the obstruction to the functioning of PREMA, that is, release the suppressed curiosity. This is a delicate task. But it is a necessary one as a prior step in enlisting the co-operation of the adults in what you intend to do for them.

3 Shrinking of Field of Interest

31 SPECIALIZATION

In association with the external cause of suppression, there is an internal cause which leads to a progressive narrowing of the field of interest. As one advances in age, differential interest develops, that is you are attracted towards different things, in different degrees of intension. Poles of attraction and repulsion and neutral regions develop in the field of experience. This phenomenon naturally results in a narrowing of the field of interest but with the compensation that what remains gains in intensity. With the intellectual workers this has been rendered a necessity by the enormous rate at which the universe of knowledge is growing today in extension and depth. Specialization has become a necessity. This is even reaching pathological dimensions, with the result that the cynic has coined a definition.

According to it, a modern specialist knows more and more about less and less until he knows everything about nothing! This phenomenon of specialization and its correlate, the narrowing of the field of interest, have developed in the upper strata of society. This induces the masses also to simulate the classes. This false social pressure is now having a deleterious effect on the masses. These are all largely incapable of attaining the intensity of their superiors to compensate for contraction. They should, therefore, be helped to give up this simulation and make their life fuller and richer not by the depth but by the extent of their field of interest. In this they have to be helped by example rather than by precept. Some of the methods discussed in Chapter J will be particularly helpful in this matter.

32 ECONOMIC FACTOR

Lastly a word about the economic factor leading to the shrinking of the field of interest. Economic pressure usually acts as a fillip to those in the intellectually upper strata of society. It makes them change over from one field of interest to another and seek the aid of educational agencies to recondition themselves for new ventures. Many, for example, who had been in recent years elbowed out of civil service by communal canker in the Madras State, have begun to flourish in other walks of life. The Pycroft's Road in Triplicane will demonstrate this. But it is not possible for the sub-normals to do so. In their case, unwholesome treatment by the employer, underpayment, and unemployment produce an all-enveloping depression. All the fields of interest disappear. And a maddening gloom sets in. One should realize the futility of trying to give education for leisure to those thus distressed, miserable, hungry, heart broken and unhappy. I hold no brief for the capacity of "education for leisure" to correct such a condition. The correction will come only when, by wise social direction, we shall have more perfect equality of vocational opportunity. It is only something in the nature of Beveridge Plan that can meet the situation.

A global attack on all fronts is necessary. That is not in your province as social service workers. Any further pursuit of this problem will lead me astray into deep questions of economic and political import. This is not the place to raise, discuss, or solve them.

4 Adults for Immediate Attention

41 RESERVE THIS FOR THE LAST

But I brought these hard facts to your notice just for one purpose. In your stations, there will be some unfortunate adults of this category. You should reach at them last. Don't begin at that wrong end, get shocked by absence of response, throw up your hands in despair and misanthropy, and announce to the world that our masses are never-do-wells and that they will neither help themselves nor allow others to help them. Beware that you are pioneers in this work. You are aware that even your very coming to take this course has been looked at askance by the cynics of your place. It has begun to fill the gossip of the garrulous. All eyes are on you. The slightest discomfiture on your part will be magnified by them. And if you yourself start the opinion that the masses are never-do-wells, you are finished. The damage may be even greater. Such a break-down in one centre will get flashed to the ends of the earth ; you will be jeopardizing the work of all the other centres. It is to avert this that I introduced this question, though I know it is insoluble so far as you are concerned. Let me repeat : The motive force for education cannot be revived in them. Don't attempt.

42 LOWEST GENTILES

For a similar reason, you should not attempt to deal with the lowest ten per cent of the population. God in His wisdom makes them imbeciles. Is it to balance the superior ten per cent at the other end of the scale ? The lowest gentiles should be left to the care of specialists, psychiatrists, and others of that kind.

43 WHAT REMAINS

Let me, for a moment pursue this line of elimination and define the exact section and percentage of your local community whose education you can take on hand. Remember that, on the first day, the very definition of social service reduced your sphere to the lower 50 per cent. If you remove the imbeciles who fall entirely within this range, you get 40 per cent. Remember again that 25 per cent of these are of school-going age and there is already provision for their education. They are not adults. This reduces your sphere to 30 per cent. Again at the present stage of our society, you will find it difficult to deal with males. It is wise to confine yourselves to women. This reduces your sphere to 15 per cent. Some of these will belong to the unfortunate class which you should, for the time being, keep clear of, because of the economic maladjustment, already described. You should also exclude the infirm. Thus, if the population of your locality is 1,000 you may have only about 100 people to serve. It is good that you realize this and adjust your ambition and work accordingly.

5 Facility to Learn

51 IMITATION

So much about desire to learn and capacity to learn. Let us next turn to facility to learn, that is, facility for the play of the force of imitation. I am deliberately omitting to mention counter-imitation, since we are dealing with sub-normals and not with super-normals with whom alone, you remember, counter-imitation is productive. In exploring the available sources for initiating the imitative force, we must bear in mind all the changes that normally occur in adulthood. In this respect adult education differs from child education. The difference is the reflection of the difference between adult and child psychology.

52 ADULT PSYCHOLOGY

In adult education focus shifts largely, if not entirely,

to the cultivation of intellect ; at any rate it is the umbral region. We shall confine ourselves to this. Secondly, adult interest is characterized by a greater degree of specificity, than child interest. Thirdly, suppleness of body as well as the mind is far less in the adult than in the child. To put it in another way the specificity of the mode and rate of learning gets very pronounced as one advances in age. These factors in adult psychology throw much light on the sources that can successfully set up the imitative force and contribute to the cultivation of intellect in adults.

53 DIFFICULTY ABOUT MODEL

The peers and superiors, whose specificity of interest is comparable to that of the adult learner and who can therefore be effective models for his imitation, are fewer. Often there are not any in the immediate neighbourhood. Perhaps some will be found in distant places. That is why we say that travel helps education. But how many can afford to travel — especially among the ten per cent of the community with whom you are concerned ? Even if they find the necessary time and money, can the State provide the necessary large-scale transport facilities for the purpose ? Nor can the peers and the superiors be brought to the adult. Thus education by travel has to be ruled out as impracticable.

Secondly, even supposing that the adult is brought in proximity to the peers and the superiors of his specificity, the economic pressure and high tension of life in the modern times make each so absorbed in himself and in his own work that the chances for effective contact and communion are very few.

These factors rule out the most effective facility, namely, personal influence and communion between the adult and his peer and superior in specificity of interest and specificity of mode, standard, and rate of intellectual development.

54 SUBSTITUTE FOR MODEL

Thanks to Gutenberg, however, we have today an

alternative, though it is only a substitute and therefore of the second order of effectiveness. His invention, five hundred years ago, of printing from movable metallic types has made it possible to transport intellectual output from place to place. Books are like storage cells. Intangible, intellectual output can be packed in them for transport purposes. Thus packed and stored, the intellectual output can be delivered intact even at the very ends of the earth. A library is a sub-station of such storage cells. It has a battery of them. It has also the necessary transformers. With them, the potential thought-energy stored in books can be transformed into kinetic thought-energy. This is capable of irradiating the brains of the human beings and thus give a chance to generate new kinetic thought-energy.

55 POWER OF BOOK

The power of the book to transmit intellectual output through space is also available to transmit it through time. As if to compensate for the obstruction involved in this mode of seeing the way in which the intellect of a contemporary model answering one's own specificity functions, this mode enriches the collection of models by making it possible to see also how intellects of one's own specificity functioned in all the past ages.

56 ORGANIZATION OF LIBRARY

The library is today conceived as an ever-available instrument for the perpetual self-education of one and all whatever be their specificity. Accordingly it assembles the intellectual output of all times, of all lands, of all standards, of all forms, and of all languages. It organizes them in accordance with their specificity. It builds a catalogue of them in such a way that it readily discloses not only what the library has by an author, but also what it has on an author, on a subject, on all the subjects auxiliary to it, in a publisher's series, and so on. It is so featured that whatever little tag the reader is able to bring to it to indicate his want, it works with it and soon discloses what the library has to meet his

want. It allows open-access. That is, it allows readers to walk amidst books and browse as they please. It has the book collection guided most helpfully with a plan of the stack room, with tier-guides, gangway guides, bay guides, shelf guides, and book tags. It arranges the books themselves in the filiator sequence of their contents and standards, which means according to the specificity of readers. It does more than that. It remembers that books are mute and incapable of movement. As a reader walks through a gangway, the books with his specificity get enlivened and delighted at the sight of their potential users. But alas, they can neither shout out and invite them nor by themselves move into their hands. They are, therefore, most distressed in these circumstances. The library knows this handicap of books. It knows also that all human service should at the ultimate stage be rendered by humans. All mechanical means will stop short of the final consummation. It, therefore, provides human agents to effect contact between the right reader and the right book, at the right time and in the right way. Such is the organization of a library today.

57 WORK IN UNISON

The facilities, so provided for adult education by the public library, must be fully used by the adults. Can they of their own accord — especially those who are below the average, who are not intellectuals? They can't. That is where the need arises for your help and co-operation as social service workers. Let me present the picture in another way. I shall refer to it as marriage between books and humans. The library prepares and organizes books for it. Your role is to prepare and organize the humans for the event. Adult psychology and the variegated state of adult specificity demand that you must work in unison with the library so as to provide the maximum possible facilities for the adults to educate themselves.

6 The Adults to Begin With

We have already seen whom you are going to serve in your campaign of education for leisure. Remember that it is only 10 per cent of the people of your locality. We have also seen the import of adult psychology in adult education. And lastly, we have seen that your work should be closely integrated with that of the public library. In these circumstances, with whom and with what subjects should you begin your work with adults? The first requisite is that in the interest of your own needs and in order to face difficulties one by one, your first group must be a homogeneous one. It must be made up of the upper strata of the 10 per cent falling within your range. The first of these conditions is easily fulfilled in your case. For your adult students will all be interested in home management and domestic science in particular. It is unlikely that you will face conflict of vocations among your adults to the extent to which it will have to be faced in relation to males. To find out and enlist for the first batch those in whom innate interest is greatest, spend some days in personal visits to homes and locate probable recruits. Having secured enough sympathisers, convene a public meeting. Ask the most socially-minded among the influential persons of the locality to back you by taking the chair. The meeting should be used to explain to the local public the aims and methods of your service and it must be particularly made clear that the service is free, that the hours of meeting will be fixed by mutual agreement among all concerned and that joining the course is absolutely devoid of obligation of any kind. Towards the end of the meeting appoint a small committee to assist you. It must include at least one or two representatives of the prospective adult students. Use the committee to spot out and enlist those best suited to be in the first batch. If the population of your locality is 1,000 you remember that you will have to reach ultimately about 100 of them. Of these 100, restrict the first batch to 20 or even a smaller number.

7 The Subjects to Begin With

For the class of people we have in mind, it is best to begin with the subject of their daily work — the craft in which they are engaged. In your case, it will be home management as stated already. That should form the umbral region of your course. You may easily bring into the penumbral region a dash of the pure sciences forming the basis of the craft chosen. You should for example train them in keeping accounts. With this may be correlated easy arithmetic, and book-keeping. There is the time-honoured KOLAM. It is pattern-drawing with rice flour on the floor of the house. They already know it. With this may be correlated some elements of descriptive geometry. Cooking will lend itself as a tool to teach some domestic chemistry. Child-care will involve imparting a dash of anatomy and physiology. Purchase may give occasion to teach some principles of marketing and price-level.

71 BIRKBECK'S EXPERIENCE

My recommending this course is based on the experience of George Birkbeck (1776–1841). He was a pioneer in adult education. He founded the Mechanics' Institutes of the United Kingdom. He was the son of a Yorkshire merchant. He had his university education in Edinburgh. When only 23 years old, he became professor of science at Anderson's College, Glasgow. He established in 1800, courses of lectures for artisans. Their popularity eventually led to the founding in 1823 of the Glasgow Mechanics' Institute. In 1824 he took part in founding a similar institution in London. This was eventually rechristened after Birkbeck. Neither the ridicule of scoffers nor the quarrels of its promoters stood in the way of its ultimate success ; and, what is more, it was soon imitated throughout the land. I hope your movement also will stimulate similar ones throughout India. In the meantime, let me tell you something of the first experience of Birkbeck. There was at that time no maker of scientific instruments ; and he was obliged to have them made by ordinary workmen.

He had employed a tinman to construct a model of a centrifugal pump. While surrounded by the workmen in the cellar, he was annoyed to find the mistakes they made and their inability to grasp the basic principles on which their work depended. Instead of getting angry or despondent, this young man of 23 thought how much more efficient these artisans would become if they were given some instruction in the basic sciences. In 1800 he communicated his wishes to the trustees of the College. They laughed at it as a visionary proposal from an immature lad. New broom, they jeered. But fortunately for the adult education movement which was yet to be born, his father encouraged him to go ahead with the idea. He accordingly circulated a printed invitation to the artisans of Glasgow offering free lectures. Lectures from a University Professor meant for them high-brow stuff not related to their practical needs or capacity to comprehend. With a good deal of canvassing he could secure but a handful of hearers. But he started not with pure science but with the several instruments the artisans make. The basic sciences were all nicely sandwiched. This gave so much satisfaction that the number of participants exceeded 500 in the fourth lecture. This procedure from the known to the unknown made adult education movement a reality. Town after town established Mechanics' Institutes.

72 TOWARDS WHAT TO GRAVITATE

But remember that your aim is not merely to make your adults more efficient in the craft which they practise — though there is nothing improper or dishonourable in aiming at it — but to gradually widen their vision and their field of interest. You begin with their craft, because that is the best way of securing their co-operation in the first instance. They are not intellectuals. The humanities, the social sciences, and the natural sciences cannot interest them until their intellect is cultivated to the necessary extent. It may also be said that there is no element of trickery in beginning with their crafts. It is merely the dictate of

elementary psychology. The fuse-thread of the Chinese cracker symbolizes the psychology. To reach the explosive that is securely packed, covered, and deeply buried inside the cracker, you have to begin by setting fire to the fuse-thread which has a drop of the explosive in an easily accessible condition. For the fire to reach the hidden regions, you have to start by lighting it. So it is in education with work-people. The basic sciences of their crafts are first brought into the field of interest. Then you relate their crafts to society and create interest in sociology. Step also, as far as it can be pleasurably done, into regions of history, economics, and geography. Then the time will be ripe to extend the field still further into the humanities, the arts, and the thoughts that concern the sublime.

73 EXAMPLE

I would ask you to read up the experiences of the folk high schools of Denmark in this connection. About 80 years of practice have resulted in the following typical distribution of subjects in the time-table.[7]

Women's Course			
<i>Subject</i>	<i>Hours</i>	<i>Subject</i>	<i>Hours</i>
Danish	7.03	Arithmetic	4.00
Handwriting	0.03	Drawing	0.04
Reading aloud and		Singing	1.09
History of Literature	2.09	Gymnastics	5.04
History and		Sewing	9.06
Danish Law	11.92	Domestic Science	1.03
Geography	1.08	Other subjects	1.05
Natural Science			
and Hygiene	3.03		
Total			51.00

This distribution shows that as the education of the community advances, adult education will slowly out-grow the need to dwell much on the bread-earning craft. It will gradually reach with comfort and effect the

cultural and the deeper interests of the man and his soul.

8 Follow-Up Work

You cannot retain the group under your care for ever. They will not relish it. And you too have other batches to take up. You must, therefore, so spend the time with them that they are as quickly as possible fired with a desire to continue their education without your aid but with the aid of the library. You must, after you let them go, keep in touch with them. You must, in the present state of affairs in our country, take steps to provide reading materials for their further self-education. In fact, you will also have to take special steps to secure an adequate collection of books for your adult class itself. This is a vital problem. Normally, the solution of this problem should not face you. I hope it will not face your successors. But as pioneers you have to put up fight on all fronts. This is what I propose to deal with on the next day.

CHAPTER F

BOOK

0 Introduction

The other day I traced how the pronounced specificity of adults demands the use of the books for the cultivation of their intellect. That was a theoretical approach. Let me begin today by reinforcing that idea with concrete examples from history.

1 Examples

11 AN EARLY EXPERIENCE

Society for the Diffusion of Knowledge

The Mechanics' Institute of the United Kingdom had by 1851 collected each an average of about 1,000 books as an aid to teaching and for follow-up work. Lord Brougham, who was closely associated with Dr. Birkbeck in adult education, had already promoted a Society for the Diffusion of Useful Knowledge. It found that books written for university men — for the upper intellectual strata of society — were not easily intelligible to the lower strata. To distribute books of such high standard among those who were below average amounted to a mockery. It was felt that books should be specially written for the artisans and workers with less of abstraction. Everything in them should be made to cohere about concrete situations within their experience. They should be written in a style and in a form palatable and assimilable to them. The writing and printing of cheap instructive literature was therefore taken on hand. Several tracts were published. The claim of the Society to enduring fame, however, rests upon the *Penny magazine*. It became the mental food of millions of working-class adults. "Striking points of natural history, accounts of the great works of art in sculpture and description of such antiquities as possess historical interest" filled its weekly issues. The Editorial Board

recorded that there has "never been a single sentence to inflame a vicious appetite, no excitement for the lovers of the marvellous, no tattle or abuse for the gratification of a diseased taste for personality, and above all no party politics." [9] While current thought was thus retailed to the workmen, universal knowledge was written down to their level in the *Penny cyclopædia*. It was published in fascicules costing a penny each. It extended eventually to 15,000 pages ; and it was sold to the extent of 75,000 copies. I was lucky to procure a set of this encyclopædia for the Madras University Library. You may see it there. Between 1832 and 1834 the Society published the *Gallery of portraits*. In it appeared biographies of statesmen, warriors, and men of science, letters and arts. It contained instructions and entertainment for the common folk. There was also the *Pictorial Bible*. Several other books of a similar kind were produced specially for the use of the below-average adult. This is a measure of the correlation of books and adult education for the masses about a century ago in Great Britain.

12 PRESENT EXPERIENCE

Workers' Educational Association

Let me next show you what it is in the present century. A typical and the most extensive organization for social service to the masses through education for leisure is the Workers' Educational Association. It has "WEA" as its short name. It was founded in 1903. Its objects are :

- 1 To stimulate and to satisfy the demand of working men and women for education ; and
- 2 To work for a national system of education which shall provide adults full opportunities for complete individual and social development.

For this purpose, it works in close co-operation with Universities and Local Education Authorities.

The WEA owes its origin to Albert Mansbridge. He was a clerk in the Co-operative Whole-sale Society.

He was knighted eventually for his pioneering work in adult education. I met him in London in 1924. I still remember vividly the impress of vision and will on his face. He is one of those who have the insistence to locate the root of a matter however hidden and far removed it may be. And so Mansbridge and his co-workers realized almost immediately that the first essential condition for the success of adult education was that adults should have continued access to books of the right kind.

121 NATIONAL CENTRAL LIBRARY

In the early days, an *ad hoc* collection had to be made and distributed to the adults as their needs became known. Even in urban centres where a public library existed, it was found in those early years the books provided by them were not often suitable for the class of adults in question. The limited means available made the *ad hoc* purchase and distribution unsatisfactory. The variety of subjects taught was growing rapidly ; and the need for a completely equipped adults' library was increasingly felt. A representative cross-section of the book-world was needed. A limited supply hampered the grading of books according to the stage reached by the adults. With the continued growth in the size and variety of the adult student body, some new method was necessary to alter the inadequate and uneconomical system in which a number of different bodies each tried to meet their own needs. It was to meet this situation that the Central Library was founded in 1916. When I visited it in 1924, it had already grown to great dimensions. In 1931 it was incorporated by Royal Charter ; and its purpose was extended. My friend Dr Luxmoor Newcombe became its librarian. He developed it soon into a colossal institution with a vast annual out-turn. The Government, the Carnegie United Kingdom Trust, and several other foundations are contributing to its finance. In about fifteen years, its stock reached 200,000. It borrowed about 10,000 a year from 135 other libraries to supplement its own resources. It lent about 12,000

volumes a year to adult education classes. This implies that the actual number of issues to individual students would in the aggregate have reached a total of considerably over 100,000 each session. This was in addition to what the local public libraries provided. Under this category should be included about 50,000 volumes lent by several county libraries and about 10,000 lent by many urban libraries. These would imply an additional issue of 500,000 volumes.

13 AN INDIAN PRECEDENT

The above two examples have both emphasized the place of books in adult education. The one has dwelt on the production of suitable books, and the other on the agency for their collection and distribution. In India we have still to face both these problems. I had been deeply interested in both during the last twenty years. But the vicious circle of supply and demand had always been baffling. I once studied up the method employed about a century ago in this and other constituent States of India to cut the vicious circle in a similar situation in the provision of text-books for the children's schools. It was cut by State action. It was made part of the duty of professors to write text-books in their respective subjects. It was made part of the duty of the inspecting staff to distribute them to schools. It is amusing to read in the *Report* of the Director of Public Instruction that each Deputy Inspector of Schools was allowed a small carrier fee for the purpose. Remember there was no train or bus service then. The Deputy Inspector often carried the bundle of books on his head. The whole business was managed by a quasi-official body known as Madras School Book and Vernacular Literature Society founded in 1820. Sir Thomas Munroe allowed it a monthly grant of Rs. 700 and it was allowed to have its Depository in the Old College, Nungambakkam. When it was felt in 1880 that the rhythm between supply and demand had set in and attained sufficient amplitude as shown by the Society having a credit balance of

Rs. 30,000, State action was withdrawn. I need hardly add that it was the State which took action for founding the schools themselves ; some were established by itself ; many were established by the Local Bodies empowered by legislation to do so ; and some were encouraged by grants-in-aid. Schools and text-books have now become realities. But libraries and adult books are yet to become realities.

2 Book Citadel

I had been dreaming about them a good deal. I had been in despair whether they would ever descend from dreamland to *terra firma*. This new organization of yours fills me with hope. The work that you are appointed to do may lead to realization. It is in this mood of anticipatory joy that I should like to describe to you the book-citadel of our state as it has developed in my dreams. I shall begin from the top of the citadel and descend down, step by step, until I reach the level where I meet you in your future work as it would be in actuality.

21 FIRST DREAM

Here is my dream-picture. I find myself in a big building in Madras. It has a huge stack-room like the one I had seen in the Central Library in Malet Place, London. I find boxes and bags and packets of books being loaded and unloaded. The telephone is busy. Madura's message reads, "The adult school opens next week. They intend to do Weaving, Dyeing, Pandyan History, Tamil literature and Music. Enrolment is 60. Please attend. List follows". A letter from the District Librarian of Guntur mentions about 30 books which are needed by about 15 adults scattered through the district but are not available in the local libraries or in the District Library. Calicut writes : "The adult school is just over. The members want the following books to be left with them for circulation among themselves for about a year."

I run up to Calicut. The special box of books had

already arrived at the public library. The books are found displayed in the seminar room. Adults are busy browsing and working out a plan how best to get them used fully and by all within the year.

I go to Madura. The adult class is in full swing. It meets on Sundays. The social worker of the place has trained one of the adults to be the honorary librarian. I ask if the adults confine themselves to that collection. "No," replies the honorary librarian. "These are only several copies of the text-books we use. We draw from the Public Library for our general study."

I speak to some of the adults just leaving the classroom. "Are you happy," I ask some of them, "Do you get the right kind of books on the subjects you like to pursue?" "O, yes," they say, "We have a project on hand. We don't have in our Public Library all the books we want. But the Librarian has written to the Central Library at Madras. They will come, quite all right." "Happy souls," I say to myself.

22 FIRST SHOCK OF REALITY

I am disturbed by a knock at the door. I wake up. My friend Rao Saheb Kanagasabhai Pillai enters. He has arranged for a 45 days' course of adult class at Mannargudi, the town where the first travelling library of India was founded on 21 October 1931. I took part in that function. He had been moving from place to place to collect books for them. He had visited some homes, but he could only get tattered copies of *Ananda vikatan* and some novels. He had been to the book shops in the City. He found plenty of school text-books. But the adults would not touch them. These books were too immature in thought-content. The other books were mostly either novels or religious books or *puranams*. He did not want them. No books on gardening, none on chemistry suited to the need of the daily life of the farmers, no books on civics with special reference to District Boards and Municipalities, none on hygiene and physical exercise. These were the chief subjects to be covered by the Courses. I tell him that books of that

kind do not exist in Tamil. "Then what to do?" he asks. "Go to the bookshops in Mount Road," I tell him, "And pick up English books. Let the teachers relay the contents in Tamil". "We can't hold the interests of the adults that way," he says in a sad tone. "Anyhow let me go and buy what I can. Let at least the teachers read them. If I have time, I shall translate some of them into Tamil and circulate the manuscripts among the adults when they go back to the villages."

23 DREAM CONTINUED

A few days later, I was again in the midst of my dream. I am in the Mannargudi Adult Education Centre. I am filled with delight to find the library room humming with life. There are some hundred books on indigenous Indian games. They are all beautifully illustrated. I pull out some of the books and peruse them. There are so many varieties of games described. The seasons when each is best played are discussed. The nourishment that goes best with each is detailed. The physiological and anatomical implications are explained. It is all in Tamil. I had never known of such games. They had all been forgotten by our folk. Who revived them? How did they get information on them? When I was librarian, I never succeeded in getting any book on them. How have they now appeared? I am anyhow filled with joy.

24 SECOND SHOCK OF REALITY

Again a knock at the door. Again I wake up. Again Kanagasabhai Pillai enters, this time with a small packet. "Have you succeeded" I ask him. "This is all the success," he says pensively and opens the packet.

"Why such a poor show? Were you short of funds?" I asked with a look of surprise.

"No. Not merely that," he replied, "It is true that these books are far too expensive for us. But I could not find what can be of interest to our adults. There was one gardening book in one of the shops. But it was all on gardens in England and other colder countries.

There were plenty of books on chemistry. But some of them were orthodox text-books for the school and college classes ; the others were too advanced. I found Mellor's volumes and Thorpe's *Applied Chemistry*. Of what good are they to us ? " I feel that he has not gone about the business in the right way, and I say : ' Surely, I know that there are plenty of books of the variety of *Chemistry for everyday life*. Probably, you did not ask for it.' " " I too know," he says with resignation, " But, they do not have copies of them here. They stock only text-books and university books. Of course that man said that they were procurable to order. If I paid the cost now in advance, he could supply them in about three months. Of what use is it to me ? "

I become impatient and ask : " What about books on local administration and civics ? I remember to have seen some titles included in a recent arrivals-list which some booksellers sent me the other day ". " You are right," he replied with a look of disappointment. " I saw them. But they are all American. What is the good of my translating them into manuscript books. And yet I have brought just one book which paid greater attention to principles. The only other books I bought were two on physical games and a copy of the *Science of life* by H G Wells."

" This last book is very appetizing you know," I remarked. But he knows the adults far better. He makes a chill pass down my knees saying with a certitude and with a look that scorches my presumptuousness : " Even in the West, it has no circulation among the masses*, you know. It is all appetizing only for you and me. In fact, I bought it for my own use. Imagine ! Not one readable book on biology in all the shops of Madras."

I try to console him saying, " I hope that at least the two books on physical exercise and games are to your satisfaction." " No," he says, " They are no doubt better. But they do not include any traditional exercise or game of India. The adults will laugh at me

* Fly (Marry L.) Ed. Adult education in action, 1936, p, 247.

if my school keeps clear of them. They know them. But they only imitate blindly and in some cases wrongly. This course will be useful to them if the physiology, the anatomy, and the hygiene involved in them are explained to the folk. I am afraid, they are all dying out—I mean the games themselves. I hope that somebody will record them before it is too late and that some of our scientists will expound them with a scientific background and restore them to a true form.”

25 THE POTENCY OF THE SCHEME

This painful alternation of dream and fact has fallen to my share during the last twenty years. I look upon this movement inaugurated by Lady Hope as having the greatest chance to make the dream-part of it a reality and the fact-part, a thing of the past. I, therefore, want to spend the rest of the time today in some concrete proposals for you as pioneer officers to make the Book-Citadel of Madras a useful, spacious, and rich reality.

3 Library Edifice for Distribution

Let me begin with the agency for distribution. Even there, let me first state the objective. I have worked it out from first principles elsewhere. [10] I merely summarize the conclusion here. The national organization of India for distribution of books to one and all, each according to his interests, standards and needs, will require a national library edifice consisting of a grand National Central Library at Delhi, about 15 State Central Libraries at the headquarters of the Constituent States, about 200 City Central Libraries with some 3,000 Branch Libraries, and about 400 Rural Central Libraries with about 3,000 Branch Libraries for towns, and about 2,000 Librachines or Travelling Libraries visiting as many service stations as there are villages and connected groups of hamlets. These libraries should house between themselves 600 million volumes. They will need a staff of about 150,000 professionals and semi-professionals. The annual budget of the Central

Government will provide about 5 crores of rupees for capital expenditure on the libraries. The annual budget of the Madras Government will have for its share of the cost of the edifice about a crore of rupees to supplement 33 lakhs to be raised by the Local Library Authorities by library rates of their own. Don't be alarmed at this estimate. It amounts only to half a rupee per head ; whereas England spends one rupee and the United States two rupees. So much for the agency for distribution. This will, of course, meet the need of the entire community and not merely of the 10 per cent with which your specific work is concerned. You cannot directly contribute anything to the consummation of this. But the awakening your work will produce in the masses will hasten and, in due course, compel its consummation. For I remember the wise and hopeful words uttered by Lord Haldane in a Library-Conference attended by me in London. He said, " Matters like education, instruments like libraries, we leave to take care of themselves. The State, of course, will have to take it up, but it does not take things up until it finds things going. Then it will say : " Here is a good thing, a popular thing ; let us develop it and thereby attract votes to those who administer its affairs ".[11]

31 CENTRAL LIBRARY

Before leaving this subject, I should like to make one appeal. To make your work possible, to conserve the fruits of your labours, to prevent their being lost, and to help their continuous growth and make them grow from more to more, a beginning can be made by your department in building up a Central Library at Madras for social service workers. Its books may be circulated to the different centres, so that you may all keep abreast of the progress of knowledge. Such a library need not cover the whole spectrum of knowledge. Even in the part it covers, it will require only books of a certain type illustrated by the list I shall be giving you when I deal with " curriculum ". The Library will require an annual budget provision of Rs. 50,000

distributed equally between cost of books and cost of administration, I need not here go into greater details.

4 Production

But in regard to the production of books, there is much that you can do and that your department can do. At present there is no other agency to promote and take charge of the production of books in mother-tongue suited to the requirements of the adult masses. I desire to show what unique opportunities will come to you and how your department can pool the varied experiences you gather in the course of your work and help the production of books. Let me, before going into details, assure you that this will not be a permanent charge on the energy or the funds of your department. It will only be a transitional responsibility even as the Department of Education had in regard to the text-books about a century ago. This is an additional burden you bear as pioneers breaking new ground. It will soon get shifted from your shoulders to the publishing trade.

Now, what can you and your department do as a transitional measure to stimulate production of books for adults? You can help it in three ways — exploration, conservation, and contribution. Let me explain each of these.

41 EXPLORATION

The first step in building up adult literature of the right sort is to explore the wants — both expressed and unexpressed. The masses cannot give an answer to the straight question: "On what subjects do you want books?" I wonder if even you and I can do so. Everyday I experience educated men coming to the University Library and enunciating their book-needs so obliquely, so haltingly, and often so wrongly, that some minutes have to be spent in divining the exact thing they want. I have recorded several case studies of this kind in one of my books[12]. I need not repeat them here. When it is difficult for ultra-normals to say which of the existing books they want, you can imagine

how much more so it should be for infra-normals to say what book they would like to have written for them. It will often be wide of mark if you guess it *ex cathedra*. The correct procedure is to keep one part of your mind on watch on this problem when you are working with the adults. In the class-room, in the library, and in the playground, or in one of your social visits to their homes, something will turn up which you feel and the adult feels could have been met if a book on it were available. Whenever this happens note it down in your "Find-me-out" diary. As your work is mostly with the adults you have unusual opportunity to explore their book-needs in this way. At convenient intervals, sort out such notes and investigate by correspondence with big libraries having a good collection of bibliographies whether any book has ever been published on the subjects. If they have been, find out if the standard is of the right sort. After every kind of elimination, make a quarterly or half-yearly list of subjects on which actual demand arose in your centre and forward it to the Commandant. She will get similar lists from all centres. She will merge them together and work out a priority list for action. This method had been actually employed in Russia when mass education was taken up seriously some twenty years ago. It set up an institution called "Village-Book-Correspondents". Here is a description of them : "These correspondents have arisen in answer to a realization on the part of the peasants of the part played by books. It is the mission of the book-correspondent to keep the State Printing Office informed as to the type of books which have been most useful to the peasantry, most of whom are just beginning to read, the illustrations which have proved most effective, the subjects on which books are needed, etc. This is only the beginning of the work of our book-correspondents in the spreading of the literature in the village." [13]

42 PRIORITY

The book-famine in the South Indian languages is now so severe in regard to adult books in current thought

that the exploration will be quite easy. It is the Commandant's work that will be difficult. She will get so many suggestions that the preparation of the priority list will be very tantalizing. The factors determining priority will be,

- 1 the relative urgency for the dissemination of the piece of knowledge and information ;
- 2 the availability of data to write out the books ;
- 3 the availability of books in English covering the same range ;
- 4 the need for the publications of the year to cover the spectrum of knowledge in a balanced way ; and
- 5 the availability of competent authors.

43 CONSERVATION

The work of conservation concerns certain folk-knowledge especially involving techniques to find out or to do certain things which are of value on account of their efficiency and germaneness to the conditions obtaining in the respective localities. I am not suggesting that you should enter into the sphere of ethnologists to record the folklore that is disappearing according to the laws pertaining to their survival and decay. Leave the recording of folk methods which are no longer of use fall to their exclusive share. But there are certain techniques which it is wise to continue to practise. They are also being lost with the unwanted ones at the present time of transition from one phase of culture to another.

431 An Example

Let me illustrate. In the Mannargudi area of Tanjore district and in several parts of South Kanara district, tradition had perfected a technique to so treat the ordinary mud floor that it is water-proof, dust-proof, and charmingly black and shining ; nor does the colouring material of the floor stick to our clothing. The old ladies of the area are adepts in the art. But the new generation of girls who take their education

exclusively from formal schools and regard their mothers and grand-mothers as primitive, fail to learn the art. It is very probable that the art will soon be lost. It is not expounded in books as the art was perfected long before printing came into vogue. It has not yet been recorded by us either. It is so local and Indian that foreign books will not deal with them. And yet it is a far cheaper method of flooring than the ones being evolved by the architects and technologists of today. I suggest that this is a fit case for conservation and inclusion in the books on domestic science to be produced on the initiative of your department.

432 Eclectic Conservation

The folk-ways are not all good. They are a mixture. They include techniques stabilized by evolution through generations ; these often register accurately with the "individuating particularities" of local conditions ; but only the omniscient may be able to re-invent them in a short interval of time. But they also include wrong, unscientific, and injurious elements which ought to be eliminated. They are a blend of sense and nonsense. But to allow them to die together on account of our aversion to the latter is like throwing the baby away with the bath water. That is certainly wrong. But the present cleavage between the older generation and the newer leads to it. The older generation will not subject their ways and techniques to the search-light of reason in relation to the latest phase of scientific knowledge ; it will not look at what obtains in other cultural groups ; it has not developed the attitude of comparative study and eclecticism. The new generation is rendered no less indiscriminating by the kind of education they receive ; it is unable to resist being blinded by the overwhelming pressure caused by contact with an alien culture ; it develops blind prejudices ; and comparative study is not applied in an unbiased way to evaluate matters pertaining to our own culture. Indigenous techniques and ways are taboo to the new generation with the so-called western educa-

tion as all alien techniques and ways are to the older folk. Between them the community often loses the best in both the cultures that are in contact, and collects like a dust-bin what is valueless and even harmful in the long run in both the cultures. This strange pathological phenomenon in our society today is traceable to the historical fact that during the two centuries we as a social group had been stagnating and sleeping, the world has forged ahead on all fronts. The immensity of the tragedy would not be so great if our development had been arrested even from pre-historic times as in the case of the so-called primitive tribes. On the contrary, pre-historic research reveals that our social group had been occupying the premier position in pre-historic times. It had been in the forefront in several matters till about two centuries ago — not only in the forefront but also cutting new ground, progressing and evolving towards higher levels of existence. In these circumstances it is not inappropriate — nay it is imperative — that, as educated persons who come forward to adopt social service, that is, improvement of the society, as your life's work, you should not emulate either the uneducated old or the educated new in turning aside totally either the one or the other culture but that you should pick out what is of value in either and help to synthesize them so as to lead to an electric new level of culture. In that way progress becomes easier and there is every chance that the elements of dynamic stability (like the stability of the spinning top) germane to our physiological, climatic, and cultural setting will set in and lift the social group progressively to higher planes of existence. This conservation work will in reality enhance the value of your social service. Indeed its value will be totally of a different and superior order from and to that of merely communicating book-knowledge.

5 Procedure

Once the value of this work of conservation is granted, the details of the procedure follow easily. Keep yourself in a high pitch of awareness whenever you come in

contact with the older people of your locality who show evidence of any special skill. Keep friendly with them. Do not develop a superiority complex in you and thus induce an inferiority complex or what is worse a traumatic complex in them. Then they will not be communicative. If they are temperamentally modernistic though their rationalism had not been exercised till then, get into a participative discussion with them and enlist their co-operation to evaluate and separate the genuine from the spurious. If they are not so, even then treat them with respect but do the evaluation independently. Note your findings in your Conservation Diary. Sort out all such findings periodically. Weave them into an organic whole. Bring them up for discussion at your annual conferences with the co-workers from the other centres. They too would have brought their quota. Integrate them and leave the further action in the hands of the Commandant. I expect that she will shape them and bring them in the form of the books which will enrich the knowledge of everybody.

51 LEISURE-CUM-WORK

Let me relate this aspect of your work with the theory of leisure that we developed. This is not work that can be measured, nor can it be checked, nor can its neglect be found out. In other words it is not work under the behest of somebody. It is not routine work like your teaching, or your slum-cleaning or your relief work of the ordinary variety. This is not work that you can and should do in your official time only. It is not work, boring or of a repetitive nature. This is work for leisure. If you develop this as your "hobby" for leisure, you ride on the same wave of rhythm in your work-time and in your leisure-time. That itself will make you happy. Remember there is enough variation between the work-phase and the leisure-phase. If through God's grace the field for the creative work of your life lies in the same direction, your happiness will be superb and unbounded. It cannot be destroyed or even spoiled by ordinary occurrences, personal,

domestic, or official. You attain stable happiness. I believe that it will be of the same order as what realized souls describe as ANANDA.

6 Contribution

The suggestions emanating from the different officers as a result of exploration and conservation will accumulate in the hands of the Commandant. She will arrange them in the sequence of priority. Books will be planned accordingly. They will have next to be composed or compiled or got out by translation or by the combination of all these methods, according to the circumstances of the case. Your contribution to this final stage may take any form depending on your aptitude. It may be original composition, translation, providing illustrations, preparing index, designing cover page, compiling bibliography, proof-reading, and so on. They are all essential contributions to the production of the book. Do not import any scale of superiority or inferiority here. You contribute what you are best suited for. There is one thing which all of you should do. You should all act as referees before the book is printed. Like the toad under the harrow, you know where every pin point goes. You know your adults. You know the difficulties they experience with books. You soon accumulate unusual experiences to sense whether a book will be readable or not for your adults. What is more important, it is within your reach to experiment with the draft of the book on your readers and find out which portions require elucidation, which portions need to be written in a simpler way, and which part and which setting needs re-doing. This is a great service which you must do as part of your leisure-cum-work until the task of book-production is shifted from the shoulders of your Commandant and is taken up by the normal agencies in the book trade.

61 READABILITY OF BOOK

In discharging this transitory additional responsibility of yours, you must develop a flair to appraise the

readability of books. Let us, therefore, analyse the elements that go to make up readability. We have not yet evolved any objective test for readability. At present we can only collect the opinions of a large number of people and statistically arrive at provisional results. An investigation of this kind was recently done at the University of Chicago. In the absence of any such attempt in our country — alas ! how many are the problems that go unheeded in our country and how much of our time is being wasted in idleness, personal aggrandizement, and suppression of all sorts — I shall narrate to you some of its findings.

62 AN AMERICAN INVESTIGATION

The investigation confined itself to the readers of limited reading ability — just the folk forming your 10 per cent. A preliminary investigation isolated the following categories as determining readability :

- 1 Contents and its degree of interestingness ;
- 2 Presentation and the degree of simplicity of style expression ;
- 3 Organization, that is, the proportion of text to illustrations, headlines, featuring, and all other editorial factors ; and
- 4 Format, weight, proportion of black and white in the open page, colour and look of paper, and all other physical factors.

The finding is as follows : “ If you give a reader a theme that interests him, the problem of readability is one-third solved. If in addition, you find the style that best fits his needs and tastes, the problem of readability is 64 per cent solved. All agreed fairly well that less than 40 per cent ” [14] is contributed by format and organization. They have further singled out seven factors as influencing presentation :

- 1 Number of different hard words ;
- 2 Number of easy words ;
- 3 Percentage of mono-syllables ;

- 4 Number of personal pronouns ;
- 5 Average sentence-length in words ;
- 6 Number of prepositional phrases ; and
- 7 Percentage of simple sentences.

Incidentally these findings will help you in selecting books for your adults.

63 SPEAKING BOOK

During the last few years, I have envisaged the possibility of producing another class of books for neo-literates. Their production is necessary. Each book will have in a pocket at its end a gramophone record of the book. The reader will be able to pick up the words in the book simultaneously through the eyes and the ears. I call them Speaking Books. Obviously, the persons in need of them may not afford their cost. Therefore, copies of these should be had in adult schools and public libraries with the necessary equipment for using the gramophone records. There may have to be various grades of Speaking Books. In all of them, the printed part will be made of pictures and words. The proportion between these will decrease with the grade. In the first grade book, each page will be filled more than three-fourths with pictures and the rest with words. In the highest grade each verso page will have a picture and each recto page will have words. Of course, in all grades, the pictures and the words should be well integrated. My books *Social Education Literature*[15] and *Literature for neo-literates*[16] deal with Speaking Books.

64 CRAFT-CENTRED BOOKS

The interest of adults, who have crossed the neo-literate stage, in reading books as a leisure-time occupation can be kept up only along lines described in section 47 of chapter 4. This will require a new class of books. I call them "Craft-Centred Books". With each craft as focus, there should be a set of books dealing with the entire universe of knowledge. The

umbral volume of such a set will be on the craft forming the focus of the set. The prenumbral volumes will cover the rest of the universe of knowledge with a bias towards the focal craft. Chapter K of this book will throw further light on this. My books *Social Education Literature*[17] and *Literature for neo-literates*[18] deal with Craft-Centred Books.

7 Art of Writing

Remember : The above are only objective tests for readability. But the art of writing a readable book is a different affair. Success in the art is dependent solely on that happy combination of judgment, imagination, humour, sympathy, balance, knowledge of life, and knowledge of the subject. This is literary art. It is at bottom a matter of intuition.

8 Book-Famine

I have loaded this talk on books far more than others not because of my familiarity with books as librarian, but because I know that in the present state of the book situation — shall I say book-famine — in our country, you will get the first shock of your life and that a very stunning one, first when you face your class and also when you begin the follow-up work with the first batch. The situation will be heart-breaking. I want to give you due notice of it. Go prepared for the shock. Don't lose heart when it comes. No one of you can solve the difficulty severally. Draw from the very depth of your resources and native wit to make the best of a bad predicament. But organize yourselves to minimize this period of travail. Co-operate with the Commandant to do everything possible to remove the book-famine by helping in the first few years in the production of adults' books. The more intensively you do it, the quicker will be the advent of the day when the book trade itself will take the weight off your shoulders and the sooner will you be able to throw off this additional pioneer's burden and to settle down to your normal work of educating the folk to educate

themselves perpetually with the aid of the books freely served by libraries established for the purpose.

81 STATE ACTION FOR SOME YEARS

Let me repeat. This proposal that the promotion of adult literature in the South Indian languages must be by State action for some years is not an extraordinary one. Remember the direct State action in Sir Thomas Munroe's days in the production of school text-books in the South Indian languages.

82 POST-SCRIPT TO EDITION 4

The method outlined in this Chapter for lifting the book-famine is now being put into force, partially at least. In *Social Education Literature*, I had outlined the formation of a Mixed Agency to take charge of this work[19]. It has to be made of

- 1 Government ;
- 2 Book-Trade ;
- 3 Library profession ;
- 4 Profession of social educationists ; and
- 5 Authors.

A partial approximation to this has come into being in the form of the

- 1 National Book Trust ;
- 2 Southern Languages Book Trust ; and
- 3 Book Industry Council of South India.

Usually, such organizations first form the harbour for predatories backed by political influence. But, in due course, they may be expected to carry out in adequate measure the purpose of their existence.

CHAPTER G

LITERACY

0 Introduction

The other day I said that the famine of books will make you face the first shock of your life when you go back to your station, bubbling with enthusiasm, full of captivating visions. Alas ! I have to add today that that first shock will be a double one. For rampant illiteracy will join hands with the famine of books ; and acting together, they will attempt to betray you to the cynics of your place, already waiting to snub you with the naive, laconic patent of theirs " I told you so ! ".

1 Two Evils Cancel Each Other

How are you going to face the situation ? I said the other day that you must work hard and do extra work to lift the book-famine. Don't be afraid that I am going to ask you to work harder still. No, on the other hand, I am going to tell you that this is a case of two evils cancelling each other. The prevalent illiteracy will for the time being take away the edge of the book-famine. But does it mean that you will have no adult education to mind ? No. You will have a good deal of it to do. But it will be provisionally along slightly different lines until the two stumbling blocks in the way of normal work are removed. They will get removed simultaneously.

2 Educability of Illiterates

Can illiterates take education ? It is again like the question that was raised the other day. Can adults take education ? Let me begin with a heterodox statement. Literacy is neither necessary nor sufficient for education. Books also are neither necessary nor sufficient for education.

A Voice : You are contradicting all that you have said so far.

No. I am not contradicting myself ; I am not quibbling either ; I am not displaying dialectical feats. Bear with me for a while and you will see, before the hour is out, the context of this statement and its correctness in that context.

21 EXTENT AND DISTRIBUTION OF ILLITERACY

Let me begin with a quantitative measure of the illiteracy that you will have to face. The following comparative table will visualize it to you in all its force. It is distilled out of the census reports for 62 political divisions of the world embracing an area of about 30 million square miles and inhabited near the year 1920 by 1,000 million people — 60 per cent of the total for the earth. As we assumed when we discussed Adult Education, one-fourth of these are of school age, leaving about 750 millions for analysis. A little more than 50 per cent are illiterate. Which country contributes most to this figure ?

Voices : India.

Don't guess. Let me state facts — recorded facts. Here is the division of countries according to their contribution to the illiteracy of the world.

Less than 10 per cent.

Australia.	Czechoslovakia.
Canada.	France.
Denmark.	Ireland.
Great Britain.	The Netherlands.
Japan.	Norway.
New Zealand.	Switzerland.
Sweden.	United States.
Belgium.	

30 per cent to 40 per cent.

Cuba.	Finland.
Lithuania.	Poland.
Uruguay.	Yugoslavia.

40 per cent to 50 per cent.

Bulgaria.	Chile.
Jamaica.	The Leeward Islands.
Rumania.	Spain.

10 per cent to 12 per cent.

Estonia.	Hawaii.
Hungary.	

20 per cent to 30 per cent.

Alaska.	Argentina.
Guam.	Italy.
Latvia.	Virgin Islands.
Newfoundland.	Labrador.

50 per cent to 60 per cent.

Ceylon.	Columbia.
British Guiana.	Malaya.
Mexico.	The Philippines.
Porto Rico.	Russia.

*60 per cent to 70 per cent.*Brazil.
Portugal.Nicaragua.
Venezuela.*80 per cent to 90 per cent.*

Guatemala.

70 per cent to 80 per cent.

Dominican Republic.

*90 per cent to 100 per cent.*Dutch East Indies. Egypt.
India.

China and most of Africa are not included as data are not available. I quote this distillate from 1921 census, as the war has made that of 1931 census un-reachable for us. I have quoted these figures from Bulletin 4 of 1929 of the Bureau of Education of the United States.[20]

22 IMPLICATIONS

What is the implication of these figures for your work? There are three implications :

One : Of the 100 of the total population of 1,000 in your area, with whom alone your work is concerned, probably 95 will be illiterate.

Two : Therefore, you cannot look for a model in any of the western countries for the way in which you will have to deal with Adult Education for some years at least.

Three : You have to look for models and precedents in one foreign country only and that is Russia ; Russia has much to teach us — Russia of the last twenty years. You will have to search for models and precedent in the olden times too, and you will have to improvise methods having all these models — distant and far-off models — at the back of your mind.

23 YES AND NO

Let me now take up the primary question : Is an illiterate educable in the stress of modern conditions? Yes and No. It is the modern conditions that make me give this double answer. In the more leisurely days of the past, an illiterate could be educated as much as a literate. But today the economic situation does not make it practicable to carry forward the education of an illiterate adult beyond a certain point. However, it

is practicable up to that point. That is why the answer is yes and no.

3 Lowest Level of Life

Let me try to locate this point up to which the answer is "yes" and beyond which it is "no". I shall begin with a broad analysis. There are four levels of existence. The lowest is the vegetative one. In this level, life is carried forward and education or the unfoldment of personality is carried forward by bio-chemical forces. It is involuntary. Those who spend their life totally in that level are automats. That is why we use the term "vegetating". There will be some among your 10 per cent whose innate level of energy usually tends to retain them in this lowest level of existence. These unfortunate few must be helped to step up to a higher level of energy and thereby to the next level of existence. It is only the influence of your total personality that can do this delicate, subtle, human task. Books cannot be of help to them and so it does not matter if they are illiterate at this stage.

31 LOW LEVEL LIFE

The second level of existence I shall call "low level life". The level of energy of the individuals at this level of life makes them active so far as the primary senses go. Memory is developed to the extent needed to satisfy material wants. Wants are consciously developed and satisfaction is sought by voluntary methods. But the wants do not mount up very much. They are all mostly bodily wants. Mental wants are few. The pressure of the traditional modes of living usually fixes them where they are. As a social service worker, you will have to stimulate their mental wants and also help in satisfying them. You will find this difficult in the case of a few of your 10 per cent. But in the case of some, say at least in the case of half of them, stepping up their level of energy is fairly easy. Their intellect is quite fit for cultivation; it has been cultivated casually; and unsystematically; this has made them taste the

pleasure of the intellectual level of existence which is the third level. This spasmodic experience of theirs has developed in them the necessary attitude and the necessary technique though they are both pitched at a low key. You ought to intensify them and familiarize yourself with their technique and work with them in their education.

4 Methods for Illiterates

Those in the "low level life" may be illiterate and yet they are already educated as a result of their attitude and technique. Their techniques fall into three classes — Manipulative, Audio, and Visual. We can improve, systematize, and apply these techniques consciously instead of leaving them to chance incidence.

41 MANIPULATIVE METHOD

You can advance their knowledge of several subjects by providing for manipulation and action. They will learn by doing. In the eighth lecture, I shall be discussing nine methods. Six of them are applicable to illiterate adults; and three of these six are of the manipulative kind. Arts and crafts and the basic sciences can be learnt by illiterates by this method.

42 AUDIO METHOD

The audio method is the time-honoured one. Hearing the exposition of a subject and learning it thereby is well known. It is now reinforced, mechanized, and brought easily within the reach of every one by the development of the radio. This method — the method of lecture and discussion — is available in the case of illiterates. The radio has made it as easily accessible as printing made the method of learning through books. The audio method has been in vogue so long and the book method is so recent, that the race-habit in us often leads us to prefer the former when both are available. How often we prefer to pick up the daily news from the air rather than from the newsprint? You want some information and you ask a friend for

help. He gives you a book and asks you to read it. If you can take so much freedom, you often tell him : " If you have read it, I prefer to hear it from you ; or please read the relevant portion and I shall hear it ". If you analyse this occurrence, you will find that absorbing the information by the eyes from the printed word often involves a greater strain than absorbing it through the ear. It is only by discipline and habit that we can train ourselves to prefer book-method. But this habit is slow to set in. My point here is that the audio method can go a long way in the education of the illiterate. Subjects belonging to humanities and social sciences can be learnt by them to a considerable extent by audio method.

43 VISUAL METHOD

I come last to the visual method. Book-method too falls within this group. But I shall exclude it and for this purpose we shall label it "Secondary visual method". The other visual methods are collections of objects in galleries and museums ; pictures, charts, and maps ; cinemas of the modern times and the shadow plays of the olden days. It is true that these are not as freely available as books. But in all countries in which the State has entered the field of mass education, museums are being established in large numbers. The only country whose State had to face a high percentage of illiteracy after the State took mass education into its own hand is Russia. It has not only multiplied local museums but also pressed pictures and charts into service to an enormous extent. There, " much of the population education is carried on by posters issued by the Central Government as well as by other agencies. These relate to all sorts of subjects. Care of children, nature of diseases and especially infections, hookworm and other infections or carriers of infection. There are posters on the use of farm machinery, on the selection of seeds, on methods of land fertilization and cultivation such as deep ploughing ; posters on anti-alcoholism...on the subject of foreign relations, and on all communistic

doctrines.”[21] That shows the way to be followed.

Even we, who have learnt to read, instinctively give first preference to pictures. Is it not? The street-crier thrusts the week's *Ananda vikatan* or *Akasa vani* through the window; you pick it up; what do you do first? Do you first learn from the printed words or from the pictures and charts? Why? It involves less strain to read the pictures than to read the words. You take it from me; there is also the pressure of race-habit in it. The secondary visual method is quite recent while the other visual methods had been in use ever since man acquired the power of sight.

The education of illiterates can be promoted by visual method to an appreciable extent. There is hardly any subject that will not lend itself to this method.

44 COMBINATIONS OF METHODS

Then we can combine these methods in various ways; there are ready-made traditional combinations like the talkie, the lantern lecture, the drama, the *KALAKSHEPAM* (a holistic combination of lecture, monodrama, and music), chorus singing, and so on. The project-method which will be described when I deal with methods, can be profitably adapted to the needs of the illiterates.

5 Why Then Literacy?

This shows how far we can go with the education of the adults who have entered the mental level of life. But remember that you cannot go the full length in that level, unless you make the adults literate, and except with the aid of books. You can recall from my second and third talks one of the reasons for this. Can you?

Voices : Specificity.

51 SPECIFICITY AS A REASON

Quite right. As age advances and as mind grows, specificity intensifies. One has to draw help from men who are far away and from those who had been dead ages ago. This help you can draw best through books.

If you succeed in your work, many of your 10 per cent should soon reach that level. If they do, the urge to acquire the power of reading will be strong enough to make them learn the three R's.

52 DEPENDENCE AS A REASON

Secondly, the other methods make one depend for one's education on the immediate and often continued presence and service of another. Life is not leisurely enough now-a-days for this kind of personal help. And so you have to depend on self-education, that is, education without dependence on the immediate presence and service of another. For the self-education of the men of mind, we have not yet devised a more potent, a more cheaply available instrument than the printed book. Nor has any other instrument developed that range of specificity that is needed to answer the variegated specificity of individuals.

53 THE EXCLUDED FEW

Before I pass on to the third reason why one must change over sooner or later to the secondary visual or book method and that you must, therefore, transform the illiterates among your 10 per cent into literates, I want to explain to you why I used the phrase 'men of mind'. For there are other kinds of men—supra-mental men. Their distinctive level of life is the spiritual level. It is different from the intellectual level of life. In a sense it is higher. Just as a man in the intellectual level can organize his lower levels, so also the man at the spiritual level can organize his intellectual level of life more completely. He is not merely a man of wisdom but also one of profound knowledge. His low level life and his body are perfectly under his control. You know the Indian tradition that he even chooses his own moment of death. If you don't, read the life of Bhishma in the Mahabharata. At the mental level too, his efficiency is superior to that of one who has only reached the mental level of life. He acts incessantly and unerringly, but without effort and fagging. Arjuna is puzzled.

He misunderstands that a man who has attained the spiritual level of life should abstain from action at the lower levels[22]. The Lord corrects him with the words: The ignorant act with ardour born of attachment to action ; the wise act with as much ardour but without attachment ; and so thorough is their work that it maintains them ever in bliss. The uncanny knowledge of the working of nature and of the details of anatomy, for example, disclosed in the recorded sayings of Ramakrishna Paramahansa, is testimony to the superior intellectual attainments of men in the spiritual level. The biographies of Sai Baba, Ramana Rishi, Swayamprakasaswami, Anandamayi and Oliyulla will all confirm this. Their knowledge is not derived from books ; nor evolved by the intellect ; nor stored in memory ; nor built from sense impressions. Their knowledge is global ; it is spontaneous ; it is unmediated ; it is direct. Literacy and illiteracy are irrelevant in their case. I digressed into this higher level of life, which will not include any of your 10 per cent, for two reasons. Somebody asked me about education towards the sublime. I had dealt with it already in another context. Here I wanted to remind you again that not only the ordinary men above the average mental level but even the men in the spiritual level of life are outside the scope of social service workers. Moreover, I wanted to show you the truncated nature of the range where literacy is necessary. Its fullest use is in the case of those who have attained the intellectual level of life. I have thus given two reasons why, for mental education beyond a point, literacy and book-method are unavoidable aids.

54 DOWNPOUR OF NEW FACTS

Now I proceed to give a third reason. It is related to the enrichment of memory. Without memory, mental life and modern life are impossible. The demand on memory is growing by leaps and bounds in our time. The facts to be remembered are piling up beyond the capacity of anybody's memory. The rate of growth of knowledge is overpowering. It would be an interesting

exercise for you to write down a dozen new inventions of the last twenty years which have reached the level of the ordinary man. It is so easy to make up that list because there are so many to choose from. But it was not so five hundred years ago. While we have no measure of the total volume of facts and knowledge, Darmstæder, a very patient German scholar, attempted to measure its rate of growth and for this purpose he published in 1908 a volume containing a chronological list of scientific discoveries and inventions.

Here is an extract from his list :

For the quarter of a century ending	Number of discoveries listed	For the quarter of a century ending	Number of discoveries listed
1400	33	1700	218
1500	50	1800	680
1600	127	1900	2880

When Wilkam Wundt died in 1920, it was remarked that the last of the men who "knew it all" had passed away. What does this imply? Not that we shall have no more men born with capacious memory. It means only that the accumulation of knowledge and its rate of growth have gone beyond the capacity of even the most capacious memory possible.

55 EXTERNALIZED MEMORY

In these circumstances humanity has naturally proceeded to build an "externalized memory". What is that externalized memory? It is the battery of reference books you meet with in a library — encyclopædias, calendars, year books, directories, bibliographies, dictionaries, and so on. These are recent inventions made possible by the improvements in the art of printing. To be efficient it is no longer necessary to know everything and to store all facts and information in one's own

memory. It is sufficient to know how to pick out facts exactly and expeditiously as and when required from the externalized and socialized memory — from the reference books in libraries. But this is impossible without literacy. Your 10 per cent must be helped to live abreast of times. In the field of knowledge which interests them, engages them, and pays them, they must be able to use the externalized and socialized memory and become self-dependent. They must not either go without the information when it is wanted and will be of help, or depend on the immediate and continued help of somebody else. This is necessary for his own well-being and for the well-being of society.

56 CASE FOR LITERACY

Thus for various reasons, literacy becomes a necessity ; books become a necessity ; libraries become a necessity. When I discuss methods with you, you will find that each of the other eight methods has to depend for its own efficiency and fulfilment on literacy. For the library-method — the book-method — should be attached in front as well as at the back of every other method. I cannot make out a stronger case than this for literacy. You now realize in what restricted context books and literacy are neither necessary nor sufficient for education. You also see how they are both absolutely necessary if our masses are not going to be sequestered for ever in a low level life.

57 ERRONEOUS NOTION

One note of warning before moving further. Liquidation of illiteracy is necessary ; but that, by itself, is not adult education. I have to emphasize this because of the erroneous notion, widespread in our land today, that teaching the alphabet is adult education. The slogan "Each one, teach one" is constructed and propagated on this basis.

6 Liquidation of Illiteracy

Next we must consider what you must do to liquidate

illiteracy. You have to do two things for it — creation of literacy and preservation of literacy.

61 CREATION OF LITERACY

Let us first consider how to make an adult literate. The method of making an adult literate cannot be the same as that of making a child literate. The adult mind is far more mature than child mind ; at the same time the body as well as the mind of the former is much less supple and pliable.

62 NEED FOR EXPERIMENTS

Investigations are being made in other lands as to the best method of teaching reading to the student with mature experience and normal intelligence, but no acquaintance with printed symbols. India has not yet set up psychological laboratories, nor taken up such investigations. I trust that the large scale literacy campaign, which your work means, will soon precipitate psychological investigations and prescription of fruitful methods. In the meantime, the Central Library of your department should import representative literature on the subject from other countries and you should keep yourself in touch with them. You should also record case-studies that come within your experience. To get accounts of them exchanged between you, your department will do well to publish a quarterly of such case-studies.

7 Books for Neo-Literates

Next to the method of teaching, reading, and writing, come the books for the purpose. They are the fundamental materials. Good ones do not exist at present — I mean ones based on the findings of psychology. Writing primers for adults who have not learned to read while young is a really difficult task. This is not fully realized. It is blindly thought that the children's primers will serve the purpose. The adult can scarcely get much profit from them. He is not likely to be interested in learning to read out of a child's primer. The concepts

are not those with which he moves familiarly ; he has out-grown them. Even the vocabulary, although simple, is not his vocabulary. The stock of words in use is not the same for an adult, who has not gone through school but has lived his normal daily life for years, as for a child in the school. It is sure that it is restricted in both cases : but they are restricted in quite different ways. This means that special adult's text-books should be written putting into simple terms the things in which mature people can find some interest in order that their desire to learn may be kept up. Text-books of this kind do not now exist in our languages. I have seen Tamil primers avowedly produced for adults by enthusiasts. But I am afraid few of them are based on findings of psychology. In the absence of psychological investigations, the authors depend on commonsense. But it is really sense influenced by children's primers that seems to have prevailed. Subtle fallacies are behind some of those books. It is true that a mature man can understand words when spoken ; but it is seldom of avail to point out to him that the same words are represented by a set of visual, phonetic symbols. An illiterate's mental life has been built up by the use of sounds and direct sight unmediated by phonetic symbols. His methods of thinking are, therefore, likely to be different from those of one who has been familiar with letters from childhood. Words are only sounds to the illiterate. They are not both sounds and printed signs. His use of a concept is, therefore, likely to be different from the use by one who is associating it with the printed word. I have not had any experience in teaching reading to illiterate adults. It is, therefore, presumptuous on my part to pursue this subject any further. These are ideas that occur to me from theoretical considerations. I can only say that considerable psychological experiment and case-study must be made in close association with your work before satisfactory text-books can be written for adults. The speaking books described in section 63 of chapter F are therefore needed for the new literate adults.

71 PRESERVATION OF LITERACY

Preservation of literacy is no less difficult than its creation not merely in adults but even in children. Many muscular skills are retained for quite a long time though not practised. Cycling is an example. One who learned it once and never rode a cycle for ten or twenty years is able to ride on a cycle. So it is with swimming. But literacy is not a purely muscular skill ; it is not involving the primary senses primarily ; it involves the intellect, which is a mental factor of a derived second or higher order. Further the phonetic symbols are, at bottom, purely artificial and arbitrary. The combination of them is still more so. The result of all this is that reading skill — literacy — cannot be retained long without constant practice.

72 FACTS OF EXPERIENCE

There are factual authorities for this view. There is the recent utterance by the Archbishop of Canterbury in the House of Lords that " It is a really established principle that whatever is learnt until fourteen, if it is thereafter neither learnt nor practised, will be forgotten by twenty ". He cites the case of boys from poor homes in the Oxford and Bermondsey Club who had even at eighteen forgotten to read [23]. Again tests given during the first World War showed that " there must have been over a million of our soldiers and sailors who were not able to write a simple letter or read a newspaper with ease. This deficiency was not caused by their never having learned to read. The fact is that an overwhelming majority of these soldiers had entered school, attended primary school where reading is taught, and had been taught to read. Yet when as adults they were examined, they were unable to read ". [24]

73 WHAT DOES IT SHOW

What does it show ? It is sheer waste of the national resources to spend them on the creation of literacy whether in children or in adults, but fail to provide public libraries for practice, which is the only known

means of preserving it. The public library system of the land has thus a double purpose to serve. It serves as the most potent instrument devised till now for the perpetual self-education of one and all ; and it serves also as the only means of preventing relapse to illiteracy -- that is to secure that the money and energy spent on the edifice of education is not eventually wasted by such a relapse. An educational edifice in a nation without a library edifice is, therefore, like a mud-house built in all seriousness but left without roof.

8 The Solution

Let me conclude by quoting myself : " The post-war educational edifice outlined in Sargent's report would be a truncated one if the library edifice envisaged here be not organically linked up with it. The two should be erected together and simultaneously. Otherwise Sargent's edifice will be riddled with leakages leading to colossal national waste. If the two edifices are conceived as a whole, planned as a global unit, and made to grow abreast of each other from now on, educational leakage will be eliminated. What is initiated in the educational part of the edifice will continually and with certainty, be transformed by the library part into perpetual universal education. India can then stand four-square against one and all of the Beveredgian giants, make herself happy, and also make her own distinctive contribution to world happiness ".[25]

CHAPTER H

CURRICULUM

0 Introduction

The curriculum in a particular adult school will have to be determined by local conditions, the level of the adult students, their vocational and other interests, the teaching personnel available, the books and other facilities like laboratories available, and so on. While discussing adult education, I showed you where it is best to begin and towards which to gravitate. Two examples of this are given in Chapter K.

1 Local and Temporal Variation

The emphasis and the frequency of courses in the several subjects will vary from place to place. Even in one and the same country the focus shifts progressively from arts and crafts, through the related basic sciences, through social sciences, through humanities, and finally to the fine arts and to what relates to the Inner Man. In Great Britain, for example, the focus was on arts and crafts in the early nineteenth century. About the middle of that century it shifted to the basic sciences. Then it shifted to subjects of social value like civics, co-operation, labour problems, marketing, history, and similar ones. In the present century, literature, music, dance and similar creative arts are engaging great attention.

2 Natural Shift in Emphasis

This progressive shift in emphasis is but natural. The field of interest properly pertains at first to the material level of life. Then one enters the intellectual level. There are three sublevels in it. In the first of these, intellectual subjects with a direct bearing on one's work at the material level claim the greatest attention ; these are the basic sciences. In the second sublevel, living

in isolation gives place to an urge to live in organic relation to others ; to make life of that kind effective there is need for memory to be enriched with historical facts and contemporary information. In the third sub-level, social sciences are able to release the intellect for cultivation even along abstract lines, such as philosophy, psychology, and principles of political science, economics and sociology. But all along there is also a pull towards the spiritual level of life. When life has been lived to a certain degree of satisfaction in the other levels, the focus shifts towards this higher level. Fine arts, mystical writings, and literature represent the subjects of transition from the intellectual to the spiritual level. These are ordinarily said to satisfy and refine the emotions. But in reality they also bring satisfaction to the Inner Man, though it is still continuing to be in an unmanifested state and not energized to blaze forth and organize and direct all levels of life holistically. The curriculum must be prepared to cover up to this point.

3 Illustrative Syllabus

I shall now proceed to mention some subjects likely to figure in one adult school or another and at one time or other. I shall enumerate the subjects with some notes and a short list of books to indicate the scope and standard of each of them. Remember that it is not my suggestion that all the subjects are to be attempted by all at one time or in one centre. The purpose is only to give an illustrative list of subjects to choose from and to enable you to work out from time to time similar topics for pursuit, to suit the particular requirements of your locality. The lists of books added are only illustrative. They will also furnish models for readable books to be written in the Indian languages, suited to the masses. They indicate the vast range to be covered. Remember what I told you about the production of books, when I discussed books with you, a few days ago.

Post-script to ed 4 :—As stated in sec F82, my wish for the production of books for adults in the Indian

languages is beginning to be fulfilled. Therefore, it has been possible to include in the following list some books in Hindi, Tamil, Malayalam, Kannada, and Telugu.

3 A Science

Biographies of scientists. History of science. History of inventions.

GIBSON (C R). Great inventions and how they were invented. 1931. 6 s.

POOLE (L). Today's science and you, translated into Tamil by P N Appuswami (Viswanathan, Madras 31). Rs 1.75.

POOLE (L). Today's science and you, translated into Kannada by J R Lakshmana Rao (Sahitya Bandara). Rs 1.50.

POOLE (L). Today's science and you, translated into Telugu by V Bhanumurthy (Viswanathan, Madras 31). Rs 1.25.

GIBSON (C R). Scientific ideas of today. 1934. 6 s.

ILIN (M). 100,000 Whys : A trip around the room (Routledge), 1933. 6 s.

NEURATH (M) and LAUWERYS (J A). First great inventions. 7 s.

PRINGLE (A V). Great discoveries in modern science, 1955. 10 s 6 d.

SNOW (Charles P). Two cultures and the scientific revolution. (O U P) 1959. 3 s 6 d.

SWEZEY (Kenneth). Science, magic. 1952. \$ 3.75.

BOLTON (S K). Famous men of science translated into Malayalam by M K Sanu (Deepam Publishing Co. Ernakulam). Re. 1.00.

BOLTON (S K). Famous men of science translated into Telugu by V Bhanumurthy (Orient Longmans, Madras 2). Re 1.00.

PARKER (B M). Scientist and his tools, translated into Tamil by V Bhoovarathamurti (Book India Ltd, Madras 1). Re 1.00.

Tr. into Telugu by M Krishna Rao (Balananda Publications Vijayawada). Re 1.00.

3B Mathematics

Biographies of mathematicians. Mathematical recreations. Geometrical drawing. Enjoyment of the heavens. Use of the calendar (PANCHANGAM).

FRIEND (J N). Numbers: fun and facts. 1954. 12 s 6 d.

FAWDRY (R C). Polish up your mathematics. 1950. 6 s.

DUDENEY (H Ernest). Puzzles and curious problems 1932. 8 s 6 d.

GAMOW (George) and STERN (Marvin). Puzzle mathematics. 1958. 8 s 6 d.

HUNT (A E) Arithmetic of everyday affairs. Edn 2. 1954. 5 s.

SMITH (David Eugene). Number stories of long ago. 1948. 4 s.

3B9 Astronomy

CROWTHER (J G). Radio astronomy and radar. 1958. 10 s 6 d.

LEWIS (Isabael M). Splendours of sky. 1919. 12 s 6 d.

NEURATH (Marie). Let us look at the sky. 7 s.

PROCTOR (Mery). Evenings with stars.

SUTHAR (Chhotubhai). Akash darshan. (Hindi). (Sahitya Mandal). Rs 2.

VISWANATHAN (R K). Astronomy. (Tamil). (Kalaimagal, Madras 4). Rs 2.

APPUSWAMY (P N) and MANICKAM (J P). Let us look at the sky. (Tamil). (Avvai Noolaham, Madras 1). Rs 1.50.

SMART (William M). Origin of the earth. 1959. 3 s 6 d.

NEWTON (Harold W). The face of the sun. 1958. 3 s 6 d.

3C Physics

Biographies of physicists. History of physics. Applications.

COLEMAN (J A). Relativity for the layman. 1959. 3 s 6 d.

INDIA PUBLICATIONS (—Division). Nuclear explosions and their effects. 1957. Rs 7.50.

NEURATH (Marie). Inside the atom. 1956. 7 s 6 d.

BALAKRISHNA. Atom hamare jeevan men (Hindi). (Rajpal). Rs 3.00.

VARMA (Suryasen). Bhotiki Parichaya (Hindi). (Gaya Prasad). Rs 3.50.

RIEDMAN (Sarat R). Men and women behind the atom. 1958. 15 s.

PEARCE (C O). Einstein, translated into Malayalam by S Parameswaran. (Ullur Publishers, Trivandrum). Rs 2.00.

Tr. into Telugu : by B Raghava Rao. (Gundimadas, Elluru). Rs 2.00.

3C3 Sound

BRAHMANAND and VEDI (Naresh). Dhwani ki lahen (Hindi). (Sasta Sahitya Mandal). Rs 1.50.

3C4 Heat

BRAHMANAND and VEDI (Naresh). Garma ki kahani, (Hindi), (Sasta Sahitya Mandal). Rs 1.50.

3C5 Light

LAWRENCE (Joseph). Book of vision, 1951. 5 s.

BRAHMANAND and VEDI (Naresh). Prakash ki lahen (Hindi). (Sasta Sahitya Mandal). Rs 1.50.

3C6 Electricity

BOLTZ (C L). Electricity, 1949. 8 s 6 d.

GIBSON (C R). Romance of modern electricity, 1932. 6 s.

3D Engineering

Biographies of engineers. Accounts of great engineering works.

Inventions in transport, electronics and machinery.
Story of nuclear engineering.

3D1 Building and Building Materials

BRIGGS (M S). Building today. Edn 2. 1948. 6 s.

DAVIDSON (D M J). Floors and flooring. 1939.

DAWES (S B). Dampness in domestic buildings, 1948. 3 s.

FORD (F G) and (G F). New builders' handbook on plastering, 1948. 6 s.

FROST (W). Bricklaying for beginners. Edn 3. 1947. 5 s.

FROST (W). Bricklayers' repair work, 1944. 5 s. 1949.

GARDNER (F). Bricklaying and simple building for amateurs, 1946. 2 s 6 d.

WINCANTON (A). Cement and concrete in the home and the garden, 1947. 5 s.

3D5 Transport

BOOK OF railways. 2 s.

DOUCET (M) and COMTE (P). Travel through the ages, 1959.

FRY (Leonara). Railways, 6 s.

Pringle (P). Story of railway, 1954. 2 s 3 d.

RAILWAY BOOK, 1952. 4 s.

SIMON (Herbert) and FENTON (William). About railways, 1957. 3 s 6 d.

CYCLING BOOK of maintenance, 1951. 2 s 6 d.

FERGUSON (C G). How to look after your bicycle. 1 s.

FAWCETT (Brian). Let me drive. 3 s 6 d.

How a car works, 1956. 2 s.

MOTOR MANUAL, translated into Tamil by S Ganesan (Higginbothams, Madras 2). Rs 2.00.

GARDNER (A C). Teach yourself navigation, 1958. 6 s.

CHINN (P G F). How to make model air craft, 1953. 3 s.

HADDON (Richard) etc. Modern world book of flying. 1953. 9 s 6 d.

GROVES (G V). Space travel. 6 s 6 d.

NEURATH (Marie). Rockets and jets, 1956. 7 s 6 d.

NEURATH (Marie). Speeding into space. 7 s.

VEALE (Sydney) and WREN. How planes fly, 1953. 2 s 6 d.

3D6 Mechanical Engineering

MARSHALL (P), Edn. 100 Mechanical facts made easy, 1940. 3 s 6 d.

TAYLOR (Maxwell). Engine driver. Edn. 3, 1957.

8 s 6 d.

HUNT (Kenneth). Diesel engine, 1954. 2 s 6 d.

NOBLE (Dudley). Petrol engine. 2 s 6 d.

WRIGHT (John S B). Jet engine, 1954. 2 s 6 d. (How it works series).

3D65 Electronics

LARSEN (Egor). Radar works like this, 1957. 9 s 6 d.

NEURATH (Marie). Machines which seem to think. 7 s.

3D65:3 Wireless

BOLTZ (C L). Wireless for beginners, 1949. 8 s 6 d.

ROBERTS (Frederick). Wireless. 6 s.

3D66 Electrical Engineering

CAMM (F J). Home electrician, 1956. 12 s 6 d.

GILBERT (M). Simple home electricity with care and repair of appliances, 1948. 6 s.

HASLETT (C), *Ed.* Household electricity. Edn. 5, 1953. 6 s.

MACFARLANE (J E). Electricity in the house, 1948. 6 s.

SMITH (H P). Electricity in the home, 1947. 5 s.

3D7 Nuclear Engineering

LANDSDELL (Norman). Atom and the energy revolution, 1958. 2 s 6 d.

3D8 Sanitary Engineering

INNES (John H). Teach yourself plumbing, 1952. 6 s.

INNES (John H). Plumbing, 1952. 6 s.

MATTHEW (W P). Water services, 1954. 2 s 6 d.

3E Chemistry and Applications

Biographies. History. Application to daily life.

DOBINSON (C M). Chemistry of common substances.

FIRTH (J B). Chemistry in the home.

PILKINGTON (Roger). Robert Boyle, father of chemistry, 1959. 18 s.

SHRIVASTAV (Nandlal). Rasayan shastra parichaya (Hindi). (Gaya Prasad). Rs 3.50.

3F Technology

- EVANS (W W). Petroleum. 8 s 6 d.
 FARREL (Margaret). Plastics. 6 s.
 FIDOR. Fibre building boards, 1954. 3 s 6 d.
 GARLAND (Rosemary). Glass. 6 s.

3G Biology

- BENDICK (Jeanve). All round you, 1955. 8 s 6 d.
 CLEGG (John). Observer's book of pond life, 1956. 5 s.
 DOWDESWELL (W H). Mechanism of evolution.
 Edn. 2, 1959. 7 s 6 d.
 FOTHERGILL (Philip G). Life and its origin, 1958.
 3 s 6 d.

LANGDON-DAVIES (John). Seeds of life : The story of sex in nature, 1959. 3 s 6 d.

SMITH (J Maynard). Theory of evolution, 1958.

MAJUPURIA (Trilok). Prani-vijnan saral parichaya (Hindi). (Gaya Prasad). Rs 3.

SURESH SINGH. Jevon ki kahani (Hindi). (Nagari Pracharini Sabha, Varnasi). Rs 4.

MURARI (P). A day at the beach (Tamil). (Associate Printers, Madras). Re 1.

MURARI (P). A day at the beach, translated into Telugu (Addeppalli & Co., Rajahmundry). Rs 1.50.

3H Geology

Lives of geologists. History of geology.

FEARNSIDES (W G) and BULLMAN (O M B). Geology in the service of man, 1944. 2 s 6 d.

RAISTRICK (A). Teach yourself geology, 1950. 6 s.

CHATOPADHYAY (Deviprasad). Prithvi bani. (Hindi). (Sasta Sahitya Mandal, New Delhi). Rs 1.00.

3I Botany

BROWNING (Gareth H). Botany for fun, 1944. 7 s 6 d.

SURESH SINGH. Pakshiyon ki duniya. (Hindi). (Sasta Sahitya Mandal). Rs 1.50.

3J Agriculture

History. Soil. Manure. Crop-development. Hindran-

ces. Harvesting. Plant-breeding. Gardening.

GUPTA (Satyaprakash). Hamari phasalen, 1955. (Hindi). (Rajkamal Publications). Re 0.50.

VYAS (Narayan Dulichand). Krishi-jnankosh, 1955. (Hindi). (Satsahitya Prakashan). Rs 4.00.

VYAS (Narayan Dulichand). Annon ki kheti, 1956 (Hindi). (Satsahitya Prakashan). Rs 2.00.

3J:2 Manure

GUPTHANATH SINGH, Khad vijnan. (Hindi). (Nagari Pracharani Sabha). Rs 1.25.

JOSHI (Sankarrao). Khad our uske upyog. (Hindi). (Sasta Sahitya Mandal). Rs 3.

3J:I Horticulture

FLEURY (M) and COMTE (P). Plant and flowers, 1958.

HOW TO grow house plants, 1956. 3 s 6 d.

MELADY (John). Better fruits for your garden, 1952. \$ 1.5.

THOMAS (H Higgot). Easy guide to gardening, 1953. 6 s.

THOMAS (H Higgot). Everybody's flower garden, 1953. 3 s.

THOMAS (H Higgot). Home garden vegetables, 1953. 6 s.

TURNBULL (W H). How to grow vegetables, 1948. 2 s.

VYAS (Narayan Dulichand). Phalon ki kheti our vyavasaya, 1949 (Hindi). (Indian Agricultural Research Institute). Rs 2.88.

VYAS (Narayan Dulichand). Sag-bhaji ki kheti, 1954. (Hindi). (Sasta Sahitya Mandal). Rs 3.00.

3K Zoology

BURTON (Mauria). When dumb animals talk, 1955. 6 s.

SURESH SINGH. Samudra ke jeev-jantu. (Hindi). (Sasta Sahitya Mandal). Rs 1.50.

3KZ Animals

Care of domestic animals and pets. Dairying.

BEER (J H De). Cats, 1951. 6 s.

CLARK (K K) Bee-keeping, 1951. 2 s 6 d.

FRASER-BRUNNER (A). Home aquarium on a small income, 1954. 5 s.

GHEENT (Brian) and GILLIBRAND (Eric). Cocker spaniel book. 10 s.

JOHNSTONE (S) and (P). The home cow, 1949. 3 s.

MARTIN (Nancy). Call the vet, 1953. 6 s 6 d.

NEURATH (Marie). Wonder world of animals. 7 s.

PEARSON (Hayclar S). How to run a one man poultry farm. \$ 1.49.

NORBURY (J). Your pets and mine, 1954. 8 s 6 d.

VIRAT (Ramvriksh Singh). Adhunik pashu-palan, 1957. (Hindi). (Jnanpoeth). Rs 3.00.

3L Medicine

Care of the Body. Anatomy. Physiology.

BLACK (G). Household doctor, 1957. 7 s 6 d.

BLOUGH (G). Who lives in this house, 1958. 8 s 6 d.

GUMPERT (Martin). You are younger than you look, 1944. \$ 2.75.

HUTTON (M K). Home nursing, 1950. 6 s.

CHATTOPADHYAY (Deviprasad). Jeevaya-sastra. (Hindi). (Sasta Sahitya Mandal). Re 1.00.

MODI (Vittaldas). Rogon ki saral chikitsa. (Hindi). (Sasta Sahitya Mandal). Rs 4.00.

MEHTA (Bhanushankar). Chikitsa ki pragati. (Hindi). (Rajkamal Publications). Rs 2.00.

PODDAR (Mahavir Prasad). Kabz karan aur niwaran. (Hindi). (Sasta Sahitya Mandal). Re 1.00.

SESHADRINATHAN (N). Home doctor. (Tamil). (Avvai Nilayam, Madras 1). Rs 1.90.

3L:2 Anatomy

SESHADRINATHAN (N). Human body. (Tamil). (Pari Nilayam, Madras 1). Re 0.95.

PARKER (B M) and DOWNING (M S). How we are built, translated into Malayalam by A A Mathews. (Literature Press, Tiruvella). Re 0.85.

translated into Kannada by H S K. (Nand Paper House, Mysore). Re 0.85.

3L:3 Physiology

BIBBY (Cyril). Active human body, 1950. 6 s.

CULLIS (W). Your body and how it works, 1949. 5 s.

3L:4 Disease

WARNICK (Francis) and TURNSTALL (A C). First-aid to the injured and the sick, 1952. \$1.50.

SANJIVI (K). Medicine for lay man, translated into Tamil by N Seshadrinathan. (Avvai Nilayam, Madras 1). Rs 1.25.

VASUDEVA RAO (K). Medicine for layman, translated into Tamil by N Seshadrinathan. (Avvai Nilayam). Rs 1.40.

MATHUR (L P). Swasthya vijnan. (Hindi). (Gaya Prasad). Rs 2.75.

3L:5 Public Health and Hygiene

SESHADRINATHAN (N) and SAMBAMURTHY (R). Public health and hygiene. (Tamil). (Arunodhayam, Madras 14). Rs 2.50.

STEINCROLON (P J). How to keep fit without exercise, 1955. 2 s 6 d.

LIEF (S). How to eat for health, 1950. 5 s.

BREAN (H). How to stop smoking, 1952. 6 s.

MILLER (Jerome). Your teeth and how to keep them. 1951. \$ 3.00.

3L9C Child

BAREN (Kathleen D). Teach yourself bringing up children, 1951. 6 s.

POWDERMAKER (F) and GRIMES (L). Intelligent parents' manual, 1953. 2 s 6 d.

VARMA (Mukunda Swarup). Shishupalan. (Hindi). (Nagari Pracharini Sabha). Rs 1.50.

ACHAN (S T). Child care, translated into Kannada by K S Indravati. (Gandhi Sahitya Sanga, Bangalore 3). Rs 1.25.

translated into Telugu by A C Krishna Rao. (Adarsa Grantha Mandal, Vijayawada). Rs 1.80.

3M Useful Arts

The following list of books is given more to bring home to our mind that books can be written and ought to be on even such subjects. We have a notion that we may depend for them on traditional methods handed down by word of mouth among those practising them as a hereditary calling.

3M3 Home and Hotel Economics

- CRAIG (E). 100 household hints, 1947. 5 s.
 DAY (H H). Curries of India, 1955. 5 s.
 Domestic science and dietetics, 1958.
 HARRIS (Flora). Pickling and preserving, 1951. \$ 2.50.
 MOORE (A C). How to clean everything, 1954. 10 s 6 d.
 VARMA (Savitridevi). Bharatiya bhojan vijnan. (Hindi). (Rajkamal Prakasan). Rs 7.00.
 JOSHUA (A K) and RATNAM (C S). Kitchen manual, translated into Tamil by V Shanmugasundaram. (Arunodhayam, Madras 14). Rs 1.50.
 translated into Telugu by A Vivekananda Devi. (Addapalle & Co, Rajahmundry). Rs 1.25.

3M4 Wood Work

- BADER (I). Small things to make in wood, 1952. 4 s 6 d.
 BITMEAD (Richard). French polishing and enamelling, 1952. 6 s 6 d.
 BROWN (Arthur R). Built in furniture, 1957. 7 s 6 d.
 DOUGLAS (W B). Carpentry and joinery, 1937. 5 s.
 EMERY (A S). Elementary carpentry and joinery, 1946. 4 s.
 HAYWARD (Charles). Hammer and nails carpentry, 1946. 4 s 6 d.
 HORTON (Winifred M). Wooden toy making, 1951. 6 s 6 d.
 IRVING (Richard). Wood work step by step, 1959. 12 s 6 d.
 NORMAN (P Edward). Wooden toys for boys, 1955. 5 s.

3M5 Pottery

- HONORE (York). Pottery-making from the ground up,

1950. 7 s 6 d.

3M6 Metal Work

HOBBS (Douglas B). Working with aluminium, 1947. \$ 2.50.

ROSE (Augustus F). Copper work, 1931.

Jordan (J C). Simple beaten metal work.

Jephcott (A H). Introduction to simple jewellery. 1 s 3 d.

3M7 Textiles

ALLEN (Edith I). Rugmaking craft, 1945. \$ 1.95.

BALLAM (H). Story of a thread cotton. 2 s 6 d.

BRINLEY (Rosemary). Rugmaking, 1951. 8 s.

CHERRY (Eve). Teach yourself hand-weaving, 1954. 6 s.

GRIERSON (R). Woven rugs, 1952. 4 s 6 d.

LUNKEN (P M). Weaving at home, 1955. 1 s 6 d.

ROSEMAN (I P). Rugmaking, 1949. 3 s.

3M8 Clothes

FERGUSON (C G). How to use your sewing machine, 1957. 1 s 3 d.

FRY (Leonara). Clothes, 6 s.

3M91 Basket Making

CHRISTOPHER (Frederick). Basketry, 1952. \$ 1.50.

OKEY (T). Willow basket-making. 5 s 6 d.

WHITE (Mery). More baskets and how to make them. 5 s 6 d.

3MY Exercise and Recreation

BRAGDON (Clande). Yoga for you, 1948. 6 s.

PRINGLE (P). Story of cricket, 1952. 3 s.

PRINGLE (P). Story of soccer, 1952. 3 s.

GOVINDRAJULU (L K). How to keep fit. (Tamil). (Vanathi Pathippaham, Madras 17). Rs 1.90.

GOVINDARAJULU (L K) and JOSEPH (D J). Rural recreation, translated into Tamil by K V Ramachandran. (Arunodhayam, Madras 14). Rs. 2.10.

3N Humanities

Music, Literature and Linguistics, Religion and Philosophy. South Indian Languages.

Write to the chief book-sellers for their catalogues. Select whatever is best suited to local needs.

AGUTTER (M). Cross stitch patterns, 1952. 6 s 6 d.

ALEXANDER (Martha). Behind the foot lights, 1954. 9 s 6 d.

CLARKE (M). Embroidery book, 1949. 9 s 6 d.

CLUTTON (M) etc. Canvas stitches, 1956. 3 s 6 d.

FORMAN (Robert). Architecture models, 1946. 5 s.

GASSER (H). How to draw and paint, 1955. 3 s 6 d.

LEWIS (Waldo S). Hand puppets and spring puppets. Edn 9, 1957. 7 s 6 d.

REED (Stanley). Cinema. 6 s.

RICE (D T). Teach yourself to study art, 1955. 6 s.

THOMAS (Mary). Teach yourself embroidery, 1948. 6 s.

3Q Religion

SRINIVASAN (P R). Temples of South India. (Tamil). (Ilango Pathippaham, Madras 17). Rs 1.90.

translated into Malayalam by M Kesavan Elayath. (Educational Supplies Depot, Palghat).

3S Psychology

BAILES (F W). How to get along with troublesome people. 2 s 6 d.

BANNON (Laura). Mind your child's art, 1952. \$ 2.75.

BARUCH (Dorothy). How to live with your teen-ager 1953. \$ 3.75.

CARNEGIE (Dale). How to win friends and influence people, 1938, 9 s 6 d.

FINKELOR (Dorothy C). How to make your emotions work for you, 1952. \$ 2.95.

HUDSON (D B). Understand your child, 1949. 5 s.

HYMES (James). Understanding your child, 1952. \$ 2.95.

MOTTRAM (V H). Physical basis of personality, 1944. 2 s 6 d.

MURREL (James). How to make and break habits,

1955. 12 s 6 d.

PETKIN (J). How to enjoy retirement, 1956. 2 s 6 d.

AMANDKUMAR. Atmanikas. (Hindi). (Rajpal). Rs 5.

ARSH (Priyaratna). Kriyatmak manovijnan. (Hindi). (Rajpal). Rs 2.

SHUKLA (Laljiram). Bal manovijnan. (Hindi). (Nagari Pracharani Sabha). Rs 2.

3U Geography

Physiography, Meteorology. Biography. Historical Geography. Travels. Use of maps.

NATIONAL GEOGRAPHICAL MAGAZINE

FLIGHT (C) and LAWRENCE (E). A little about geography.

WALTER (L E). Life in other homes.

WARNER (M), *Ed.* World we live in and the people we live with. 3 V.

CHESTER (A O). Weather. 6 s.

NEURATH (M) and LAWREYS (J A). How the world was explored. 7 s.

AGARWAL (Prakash Chandra). Bharat ka bhugol (Hindi). (Gaya Prasad). Rs 3.00.

BANERJI (P C). Sansar ka naveen bhugol. (Hindi). (Gaya Prasad). Rs 5.25.

MAMORIYA (Chaturbhuj). Arthik aur vanijya bhugol. (Hindi). (Gaya Prasad). Rs 15.

3V History

History of India, Great Britain, Neighbouring Asiatic Countries. Civics. Cultural History. Appreciation of neighbourhood, archaeological remains. Currency. Banks. Marketing. Labour.

BALASUBRAMANIAN (D). World history. (Tamil). (Deva-raj Pillai, Madras). Rs 1.50.

INDIA PUBLICATIONS (—Division). India, 1959. Rs 25.

PANIKKAR (K M). Survey of Indian history. Rs 8.50.

SEN (Surendra Nath). Eighteen fifty-seven, 1957. Rs 5.50.

ACHARYA (Jamadekar). Adhunik Bharat. (Hindi). (Sasta Sahitya Mandal). Rs 5.00.

DUTT (Rameshchandra). Prachin Bharatvarsh ki sahitya. (Hindi). (Nagari Pracharini Sabha). Rs 5.

PURI (Baiynath). Bhartiya samkritik itihās ki samiksha.

(Hindi). (Rajkamal Prakashan). Rs 4.00.

UPADHAYAY (Bhagwat Sharan). Sanskrit Bharat. (Hindi). (Rajpal). Rs 3.50.

PILLAI (K K). South Indian history. (Tamil). (Palaniappa Brothers, Madras 5). Rs 2.25.

translated into Kannada by G S Krishna Rao. (Sahitya Mandira, Bangalore 4). Rs 2.25.

translated into Telugu by D Chinnikrishna Sarma. (Modern Publications, Tenali). Rs 2.50.

AROKYASWAMY (M). History of Tamilnad. (Tamil). (Pari Nilayam, Madras 17). Rs 1.50.

RAMA RAO (M). Short history of Andhra Desa. (Telugu). (Shivaraj Press, Secunderabad). Re 1.00.

ANANTASAYANAM AYYANGAR (M). On parliament, translation into Malayalam by K S Narayana Pillai. (Democratic Publications, Ernakulam). Re 1.00.

translation into Kannada by S Krishna Sarma. (Gandhi Sahitya Sabha, Bangalore 3). Re 1.

INDIA PUBLICATIONS (—Division). Naveen Bharat ke nirmana, 1957 (Hindi). Re 1.00.

PRANNATH. Sasan paddhati. (Hindi). (Nagari Pracharini Sabha.) Rs 1.50.

RUTHNASWAMY (M). Citizen and the constitution, translation into Tamil by K Venkataramanujan. (Nathan's Press). Re 1.50.

translation into Malayalam by M K Madhavan Nayar. (Sahitya Pravartika, Kottayam). Re 1.00.

translation into K K Pujari (Netravati Prakasana). Re 0.75.

translation into Telugu by M S Prakasa Rao. (Triveni Publications, Masulipatam). Re 1.00.

UNESCO human rights, translation into Tamil by A G Venkatachari. (Tamizaham). Re 0.95.

3X Economics

CURTIS (C R). Economics for everyone, 1950. 3 s.

- BARTON (Ann). Kate in advertising, 1955. 8 s 6 d.
 ARTHORP (Cynthia). How I became an air stewardess
 1956. 6 s.
 BAXTER (Valerie). Shirley, young bookseller, 1954.
 8 s 6 d.
 BRUNT (F Heathcoti). Postman, 1951. 8 s 6 d.
 CAMERON (A M). Hire risks in industry, 1927. 2 s.

3XZ Management

- DUMBRELL (H J E) and HOOPER (K E L). How to run
 a society, 1948. 1 s 6 d.
 GILMOUR (Kay). Committee procedure, 1952. 3 s 6 d.
 RIGG (J). How to take the chair, 1925. 3 s 6 d.
 RIGG (J). How to conduct meeting, 1920. 4 s 6 d.
 ROSS (Elizabeth). Making a personal secretary, 1948.
 6 s.

3Y Sociology

Principles. Scope. Eugenics. Genesis, interpretation, evaluation, gleanings and conservation of folk-ways, techniques and traditions.

CHANDRASEKHARAN (S). Population and planned parenthood, translation into Tamil by M A Abbas. (Gemini Publications, Madras 16). Rs 1.95.

translation into Malayalam by C Chacko. (Deepam Publications, Ernakulam). Rs 1.25.

translation into Telugu by A Vivekananda Devi. (Addapalle & Co, Rajahmundry). Rs 1.50.

BAXTER (Valerie). Elizabeth's young police woman, 1955. 8 s 6 d.

LEYLAND (Eric). Scotland Yard detective, 1958. 8 s 6 d.

BAIG (Tara Ali). Women of India, 1956. (India, Publications Division). Rs 6.50.

INDIA Publications (—Division). Adivasis, 1955. Rs 1.50.

NEURATH (Marie) and LAWRIES (J A). How the first man lived. 7 s.

GOLDMAN (I) and (H). First men, translation into Tamil by K Ramanujan. (Star Publications, Madras 5).

Rs 1.25.

translation into Malayalam by C Unni Raja. (Prabhat Book House, Ernakulam). Rs 2.00.

translation into Telugu by V Bhanumurthi. (Visalandhra Publishing House, Vijayawada). Rs 2.00.

3Z Law

VENKATASUBBA RAO (G C). Law for the layman, translation into Tamil by K Rajaram. (Tamizaham, Madras 1). Rs 2.60.

translation into Malayalam by K K Sankara Warriar. (Sree Rama Vilas Press and Book Depot, Quilon). Rs. 2.25.

3Δ Inner Men and the Sublime

As we saw while discussing adult education, we have no objective means to reach the Inner Man and the Sublime and to lift an adult from the intellectual level of life to the spiritual level. At best, we can help him to read books dealing with the lives and the utterances of persons who had reached that level and controlled and directed life at all other levels with all the holistic mastery which that level gives. The original sacred books of the religions are unparalleled in their value in this respect. But they may be too difficult for many. The psalms of the Alwars and Nayanmars and other later saints such as Pattinattar, Thayumana-var and Ramalingaswamy are a great heritage of the Tamil. So we have in other languages. These are all available in various editions. Here is an illustrative list of some books on technique and some biographies published in modern times. It includes some recent Tamil books also.

SUDDHANANDA BHARATI. Upanishad rahasyam (Tamil). (Anbunilayam, Ramachandrapuram).

SUDDHANANDA BHARATI. Gita Yogam (Tamil). (Anbunilayam, Ramachandrapuram).

AUROBINDO. Bases of Yoga.

SUDDHANANDA BHARATI. Secrets of sadhana. (Anbu-

nilayam).

SUDDHANANDA BHARATI. Aravindo yogadipikai (Tamil). (Anbunilayam).

SUDDHANANDA BHARATI. Yoga siddhi. (Tamil). (Anbunilayam).

BLOSUS (Abbot) Book of spiritual instruction.

FENELON. Spiritual letters to women.

GUYON (J M de la Mothe). Short and easy method of prayer.

LAWRENCE. Practice of the presence of God.

LULL (Raman). Art of contemplation.

FRIEST (A). Following the way.

UNDERHILL (Evelyn). Practical Mysticism.

WILBERFORCE. Steps in spiritual growth.

SUDDHANANDA BHARATI. Alwar saints. (Anbunilayam).

SUDDHANANDA BHARATI. Sankara vijayam (Tamil). (Anbunilayam).

SUDDHANANDA BHARATI. Maharishi Tayumanavar. (Tamil). (Anbunilayam).

SUDDHANANDA BHARATI. Francis Thompson. (Tamil). (Anbunilayam).

SUDDHANANDA BHARATI. Walt Whitman. (Tamil). (Anbunilayam).

SUDDHANANDA BHARATI. Racine. (Tamil). (Anbunilayam).

SUDDHANANDA BHARATI. Goethe. (Tamil). (Anbunilayam).

SUDDHANANDA BHARATI. Mahatma Ramalingam. (Tamil). (Anbunilayam).

SUDDHANANDA BHARATI. Sadasivabrahmam. (Tamil). (Anbunilayam).

SUDDHANANDA BHARATI. Ramana Vijayam. (Tamil). (Anbunilayam).

SUDDHANANDA BHARATI. Sri Aurobindo, the divine master. (Tamil). (Anbunilayam).

LITTLE FLOWERS of the life of St. Francis.

TULSI DAS. Ramayana.

UPHAM (T C). Life of Madame Gwyne.

4 Extra-curricular Work

The curriculum adopted will always be limited and may even be pedestrian. It cannot meet the requirements of the whole man. There should, therefore, be some extra-curricular activities — lectures, dramas, excursions, and so on. These may be shaped by the impulses generated by various causes and should be harnessed and turned to good account. Some causes can be anticipated — say, national and local festivals. The extra-curricular activities warranted by them may take the form of observing them collectively and lead to a knowledge of their genesis, history, original value, value in the present cultural context, re-valuation, and even reconditioning. Festivals like New Year Day, Easter, Ramzan, Dasara, Dipavali, Christmas, and Pongal are instances.

41 CURRENT EVENTS

Current events of great magnitude generate curiosity, interest, and impulses. These too must be harnessed and met by suitable extra-curricular activities. Foundation of an institution of national or international significance, new discoveries and inventions which are announced, historical occurrences like war and peace, and disasters of great magnitude are instances. Information about them must be given and they too must be evaluated.

42 CASUAL EVENTS

Even more casual events like the visit to the locality by a great personality, a great scientist, philosopher, economist, poet, or mystic may arrest public attention, and the curiosity and interest and impulse generated thereby must be harnessed. In this case, one method expected is that the class should be provided an opportunity to hear and contact them.

43 EXAMPLE

You will easily find many such things suggesting profitable extra-curricular activities. All adult education agencies are ever on the alert to seize such opportunities.

For example the public libraries in all countries make them a regular feature of their work. As a random example, I shall read to you with my own annotations two leaflets that reached my hands by today's mail. They were both issued by the Public Library at Acton, a small suburban area in Middlesex, outside London, a place like, say, Chingleput.

One of the leaflets announces a discussion on "How shall we plan our homes" on Thursday, 22 June 1944, at 7-30 p m at the Town Hall. Then follows the list of speakers with their subjects :

- 1 "Lay-out of housing sites" by a member of the Institute of Civil Engineers.
- 2 "Inside our homes" by a Fellow of the Royal Institute of British architects.
- 3 "Homes, their environment" by another Fellow.
- 4 "Location of Industry" by another Engineer.

There is a note which reads, "Followed by questions on the lines of Brain's Trust". This is the Forum Method that I shall be describing in the next talk which will be on "Methods".

You have read of the destruction of many homes in England by enemy action. You have also read of the vast building programme that is being promoted. Naturally the interest of the adults has been turned to house-building. This is harnessed and this is made the occasion to educate them on right lines in the subjects concerned.

The other leaflet gives a programme of monthly lectures by experts for the adults.

21 October 1943, at 7-30 pm

"Behind the scenes in the B B C" by Mr F H Grisewood.

The radio has now become so common. How long can one suppress the curiosity to know how it all happens? When one of the foremost experts happens to be available the adult education agency effects contact between

him and the people. Both the parties are thankful.

18 November 1943, at 3 pm

"The work of the British Museum" by Arundell Esdaille.

This gentleman was the Secretary of the British Museum when I met him in London. He is now retired from service. The British Museum, you know, is a national institution of varied activities. Naturally, when its ex-Secretary is available, anybody would like to hear about it directly from him. This lecture is, therefore, a legitimate extra-curricular activity.

16 December 1943, at 3 pm

"Discussion on the Beveridge Report" by Mrs L'Estrange Malone, a member of the London County Council and a specialist in Insurance and Mr G Spencer Summers, a Member of Parliament.

This is an example of the Panel Method, which I shall be describing on the next day. You know the great sensation that was created by the publication of the Beveridge Report. You know how deeply the masses were moved by the provisions it envisaged for their betterment and well-being. Who is the adult who would have been so deadened as not to have the desire to have a first-hand exposition of the report. Any adult education agency which does not make adequate arrangements to have that desire fulfilled is grievously failing to grasp a first class opportunity for extra-curricular activity.

Here are further examples.

20 January 1944, at 3 pm

"The Post-War world" by S King-Hall, Royal Navy. He is the editor and proprietor of the K-H News-Letter Service. He has travelled all over the world and has written several books on different countries and several plays and novels.

17 *February* 1944, at 3 *pm*

"Women in post-war reconstruction" by Edith Summerskill, Member of Parliament.

16 *March* 1944, at 7-30 *pm*

"The future of civilization" by C E M Joad, the well-known professor, writer, and speaker on subjects of this kind.

CHAPTER J

METHODS

0 Triangle of Forces

Today, we shall consider the methods available to conduct adult classes. I must state at the outset that in the actual life-situation of the class-room the method will be determined in an organic way by the triangle of forces — the personality, resourcefulness and agility of the teacher ; the level, capacity and mood of the students ; and the subject to be handled. The method will in this sense be unique and could hardly be pre-determined. But, for purposes of understanding it, we must analyse what is synthetic into its elements and examine the value of each of them severally and collectively. Remember therefore that the theoretical approach which we make today is by no means sufficient though it is quite necessary. What is needed is an attitude and awareness that can forge the right method on the spot by synthesis and with magical effectiveness.

1 Apprenticeship

The time-honoured method developed in an earlier cultural epoch to teach arts and crafts has been that of apprenticeship. This method presupposes the availability of a master craftsman to take the learner under his care. Even then the learner cannot take liberties in his ways of learning. He must follow the dictates of the master and do as he is asked to do. Seldom would a master subordinate the economic interests of his business concern to the educational needs of the learner. If the learner is dogged enough to submit to all conditions, apprenticeship may produce excellent results. As social service workers, you may not have much opportunity to employ this method, though in many situations it may prove effective to introduce just a dash of it.

2 Laboratory

The essential and operative feature of the apprentice method, you must remember, is that one learns by doing. This element was later separated from the concrete setting of apprenticeship in order to reduce its rigour and to provide more opportunity for doing, purely for learning. The result has been the laboratory method. This method is applicable not only to arts and crafts, but to all the basic sciences as well. This method presupposes the setting up of laboratories. It is, therefore, more costly. There is no doubt, however, that this is the only effective method for learning certain subjects.

21 CO-OPERATION WITH SCHOOL

It appears to me that for this purpose there should be an intimate co-operation between the social service centre and the local school. The laboratory of the school goes unused during many hours. Social economy requires that during such hours it must be pressed into the service of adult education. A necessary step to effect this will be to co-opt the teacher in charge of the school laboratory in the teaching staff of the adult school. I am not unaware of the touch-me-not attitude and a severe sense of exclusive proprietorship that get developed in our institutions. But something must be done to overcome such obstacles. The departments concerned must first learn to co-operate in the interests of national economy and give the necessary sanction. Then the men on the spot should meet the situation with a high civic sense, which burns out all narrow separatist tendencies.

22 NEED OF THE ADULTS

Remember that the ten per cent of the local community whom you are going to serve are below the average in their intellectual capacity. You will then realize how necessary it is to make up for this handicap of theirs by providing ample opportunity to learn by doing. This will prove very effective in their case.

23 AN EXAMPLE

Let me illustrate by recalling to you an early experience of mine. I had once a class of nine to teach. It was a very heterogeneous class. One of them is now in the Indian Civil Service, another in the Indian Medical Service, and still another in the Indian Audit Service. One has become a resourceful engineer who has found that private practice pays him amply. The other half contained some middlings. But the most interesting case was that of a fisherman boy, who looked depressed and gloomy. I felt unhappy about him. I once asked a colleague, who himself belonged to a fisherman family, as to what could be done to help the boy. He shrugged his shoulders and said that he was a never-do-well. I did not like that attitude. I said that our business as a teacher was not to brand a student in that way; but that our duty was to find out the ways and means to stimulate, so to speak, the nucleal element in his personality so that his development to his greatest possibility may be set in motion. He became cynical and said "New broom! Try by all means. But if you care for the experience of an older man, don't waste your time or thought on that dunce". However, as I was new to the profession, I had every right to emulate the new broom. I tried various ways of helping that boy to express himself and to help the unfoldment of his personality. By trial and error, I finally found out that it was the opportunity given by the laboratory which was most effective. I encouraged him to use the laboratory as much as possible. His progress became appreciable. I helped him to describe in words what he did. First he used the mother tongue. In due course he succeeded also in the use of English.

A few months later, my senior colleague, referred to previously, met me in the common room and remarked with a mixture of surprise and sarcasm, "Your pet is heading towards becoming a genius." I said, "I am glad to hear that. How do you know that?" He told me that the boy's development was slowly becoming all-round and that his performance in the English

classes had improved considerably. You take it from me that the laboratory method is very essential in teaching the basic sciences and the arts and crafts to the masses.

3 Workshop

A recent variant of the laboratory method is the Workshop Method. Workshop is distinguished from the laboratory in its emphasis on practical application of experiments. In the laboratory a learner usually finds opportunity to do only set experiments of a theoretical and abstract nature. In the workshop the approach is from and to the concrete. Often the student is given the financial benefit of what he turns out. This adds to the realignment and makes learning even more effective than the laboratory method. But I doubt very much whether this method will be available to you in the immediate future. But those who work in stations in which the basic school has been established will do well to seek its co-operation and employ workshop method as much as possible.

4 Lecture

The time-honoured method, developed very early in human history to teach the humanities, is the lecture method. It was perhaps used as the only practicable method when literacy was scarce. It still survives rightly in disseminating knowledge among the illiterates who form the bulk of our population. The pandits have developed it as a fine art. They often know the basic books like the *Ramayana*, the *Gita*, and the *Puranas* by heart. Some chapter is taken as the text for a lecture. On that is usually hung a good deal of matter of literary, religious, philosophical, historical, sociological, and legal import. The exposition is punctuated by wit and humour. Haranguing, singing, and story-telling are alternated dexterously. But the charming elements of the old method have not been grafted to the modern mode of lecturing, perhaps because it turns out to be too leisurely a method for modern times. The result is

that the modern lecture method soon becomes boring. The consequences of its inherent defect of keeping the audience passive get very pronounced.

41 EXIT LECTURE METHOD

The result is that since the beginning of the present century, the lecture method is being replaced by other methods. The first onslaught appeared in teaching the sciences. The laboratory method has usurped much time from the lecture method. The humanities and the social sciences have also begun to appreciate the need for a method in which the audience can be more active. Not that there should be no lecture. There is room for a few good lectures. The best lecture is that in which the student feels the impact of a forceful or fascinating personality. Such a lecture cannot be had every day even from the best of men. Lectures should, therefore, be few and far between. There must be a stimulating one at the beginning of a course. There must be a directing and toning up one somewhere in the middle. There should certainly be a powerful one at the end of the course to tie up the loose ends in the minds of the learners and to charge them effectively before they leave the course.

5 Discussion

At the other extreme is the method of discussion by smaller or larger groups. The habit of discussion is innate in man. It has not yet been fully and properly utilized in education. It is now running to waste by taking less profitable forms like mere gossip. But if properly guided, it can be sublimated into real values. Social service workers who have to help the further education of adults must devote thought to this question. They must learn the technique of conducting discussion. They must develop into able presiding officers. They must cultivate the faculty for receiving all kinds of speakers. They must show sympathy to every questioner from the floor. They should have a broad range of information, so that they can interpret the speakers

to the audience and the audience to the speaker, especially during the process of relaying questions. They will be most effective if they show a sense of humour that can take the sting out of some questions and remarks. At times they will have to exercise the privilege of steering the discussion with questions of their own, or raising points that had been overlooked. Above all they must be truly concerned that each discussion be conducted so as to fulfil its greatest possibilities.

51 NEED FOR VIA MEDIA

The pure discussion method is, however, more effective with those above the average level of the community than with those who are below it. With the latter alone you are concerned as social service workers. These may not be sufficiently informed and articulate to initiate the discussion by themselves. At the same time, it has to be remembered that the discussion method is superior to the lecture method as it admits the audience to an active process of thinking and participation. We want really a via media between pure lecture and pure discussion. Will a combination of the two be practicable and effective? Yes, various experiments are being made by adult education workers to arrive at a useful compromise. The one that is taking shape is what is called the Forum Method.

6 Forum

A forum has been defined as an assembly of people gathered together for discussion of a specified subject under the guidance of acknowledged leaders, with full opportunity for participation under guidance. Every forum consists of two parts ; address by one or more experts ; and equally important, a question and discussion period in which any member of the audience is free to ask a question and to advance his own views. The first part of a forum may take various forms :

Symposium : Three or more persons assumed to be

authorities on different aspects of a subject deliver a brief address covering between themselves all the relevant aspects of the subject.

Panel : Three or more persons assumed to be able representatives of different views on a given subject engage in a discussion before the audience, in an attempt to clarify certain issues and points of difference.

Lecture-panel : A speaker presents an address, following which a panel of three or more persons representing different points of view discuss the important points in the address among themselves and with the speaker.

Debate-panel : Same as the lecture-panel in which two debaters take the place of a single lecturer.

Dialogue : Two persons both experts carry on a dialogue without set speech.

61 FACILITIES

The first part of the forum can be filled up in these ways only occasionally. For a sufficient number of experts should be available. The forum that can be had more frequently is the one in which the chairman himself who will be the social service worker occupies the first part. Remember, that the object of the first part is merely to prepare the audience for the second part. If the social service worker is widely informed, he can fill up the first part of the forum quite effectively for many subjects. But to rewind the interest of the adults, you should never miss the opportunity to fill up the first part with other experts, whenever reputed persons happen to visit your locality.

611 Radio

There is a still another way in which the first part of the forum can be filled, if your centre has a receiving set. You and your group may pick up an authoritative broadcast, be it a lecture, a dialogue, a debate-panel, a lecture-panel, or a pure panel. This may be followed by a discussion within your group under your chairmanship.

62 CHAIRMAN

The success, effectiveness, and popularity of the forum will depend very much on how effective you prove as its chairman. You must learn to gauge your class, estimate its intellectual receptivity, and spot out the "cranks" and "time-wasters".

621 Impartiality

Few things will destroy a forum so much as the use of it for propaganda. It should be strictly and permanently impartial.

622 Timing

The timing of the various parts is of primary importance. A time schedule should be carefully worked out in advance. The audience and the speakers should be fully informed about it. The chairman should adhere to the plan.

623 Questions

It is quite difficult to maintain interest while questions are being asked, which cannot be heard and specially if the questioners cannot be seen. It is more interesting to hear and see the questioner. This is easily provided for by asking questioners to come near the chairman's seat.

63 SPEECHES FROM AUDIENCE

This period should be the high point of the forum. In order to give all points of view a chance to be heard, the chairman should quickly sense the number of points of view and call representatives of each by rotation. A time-limit of one to three minutes must be put on such speeches and strictly enforced.

631 Cranks and time-wasters

In your adult group, some may eagerly seek an opportunity to ask a question on every occasion. In order to protect the interests of the meeker folk, they must be gently controlled. It requires skilled work on the

part of the chairman. Firmness is absolutely necessary.

64 VALUE

The value of the forum consists in the opportunity it gives the masses to get started in thinking along relevant lines and to think through. They need to be given this opportunity to look before and behind and around any subject, to ask questions, to think out replies, and to venture into what is new. They must be granted the privilege of listening to the expert and the wise among us, but no longer in the spirit of passive acceptance. The best that social service workers can do is to help the masses into a fundamental, reconstructive, rethinking of every problem in life.

7 Library

A method, auxiliary to each one of the six methods discussed so far, is that of using the recorded information of the world. The recorded information is now available in cheaply reproduced forms in print. During the last half-century, public libraries are being set up all the world over for the gratuitous service of books. They are developing techniques to find every reader his book. They aim at saving the time of the reader. They endeavour to sort out and arrange the printed materials according to their specificity. They provide human help to enable any reader to pick up readily just the materials answering his specificity.

71 READING HABIT

The masses should be helped to exploit the services of the library to the maximum extent possible. They should be trained in silent reading. They should be taught to read books participatively. They should be helped in the art of taking notes, reassembling them, and integrating them with their own thought-content. This is necessary because it is only this method that will endure with them all through life. If you are at all successful in your service to them, they should soon outgrow your help, your classes, and your constant

guidance. You do not want to keep them under your leading strings for ever. They should fly away and perch on the library for their further self-education.

72 TRAINING IN USE OF LIBRARY

But books are artificial things. Their use cannot come to any one naturally. It can come only by constant practice. In your adult-education classes, therefore, you have to use the library method frequently and endlessly, not merely to make the students collect the information wanted at the moment, but also to accustom them to an intelligent and expeditious use of libraries after they leave your class.

73 VALUE OF LIBRARY WORK

Whatever method you adopt to promote interest in a subject be it apprenticeship or laboratory or lecture or discussion or forum, it must be linked both in front and at the back with work in the library. The students must be trained to work in the library for background study before they come to you. They must be set parallel reading when they are with you. They must be inspired to go to the library for follow-up study. The habit of purposeful study in the library will make them follow your lectures with interest. It will enable them to take part in the discussion and the forum with confidence and enlightenment. It will make their work in the laboratory and the workshop richer and really gripping. It will widen their horizon in every way. In any adult school, therefore, the library should be the hub of intellectual activity. Every other work should be made to radiate and be irradiated from this hub. If the masses get accustomed to this when they are at adult school, their perpetual self-education in the future will be ensured by its radiating and being irradiated from the public library.

74 FACILITY IN FOLLOW-UP WORK

Every social service worker should have an eye on his ex-students. Otherwise, relapse will set in unnoticed.

The public library will play no small part in this follow-up work. The need for periodical refresher courses will get minimized if the library habit settles in the adults, truly and firmly, before they leave you. Your follow-up work can then take the pleasurable form of meeting them casually as a co-visitor to the public library and discussing with them as an equal, the latest phase of all the varied thought of the day, which gets embodied in the books of the library. If you find some nodding, or some becoming scarce in the public library, then you know what to do with them, how to bring them back to a refresher course, and how you should help them to recondition themselves more effectively than on the former occasion.

75 STUDY GROUP

A special form of library method is the study group. If you find a small group of persons filled with an urge to pursue a subject thoroughly, form them into a study circle. Appoint one of them as its leader. Prepare a provisional syllabus and bibliography for them. Divide the field of study among themselves in an agreeable way. Make them work through books and record their findings. Make them meet periodically and pool their findings together. At each such meeting, make them amplify their syllabus in the light of their findings and enrich their bibliography accordingly. This develops team-spirit and self-reliance. This habit of group-study will stand them in good stead when they begin to educate themselves further, independently of you. The habit of group-study, if well-formed, will minimize the chances for relapse and the need for refresher course. That means your follow-up work will be more pleasurable and encouraging.

8 Project Method

If the library with its study-group synthesizes and enriches the other six methods, the project-method synthesizes all the eight of them. It impregnates adult education with a reality and an intimacy which are

lacking in any of the eight methods taken severally. It directs it and carries it forward in the most natural way. Nothing is learnt in this method without the need for it for immediate application. No lecture is attended, no work is done and no book is read except under the urge to fulfil and achieve something here and now. The motive force of interest is not hidden; nor is it to be taken on trust; it is nascent. The formative force of imitation and counter-imitation finds full opportunity in the books, seminars, lectures, discussion, and the workshop. The anticipatory pleasure of achieving something acts as a wholesome pull. The completion of a project by a group gives it the most exhilarating and socializing experience. You must make it a point to see that each student has the thrill of participating at least in one first class project when you have her in your charge.

81 EXAMPLE ·

Let me describe a little project to you, so that you can realize how naturally it synthesizes all the methods.

A set of pupils found interest in the discovery of the New World. It was, therefore, made the centre of a project.

First meeting : The teacher gave a vigorous outline of the event, throwing some occurrences in distinct relief.

Second meeting : Several of the pupils expressed a desire to work a project round it. The teacher discussed with them the background study necessary. It was provisionally agreed to locate books on the following topics : Biography of Columbus, travel books on the subject, general history of Portugal in particular and Europe in general at the time of Columbus, history of ships and navigation, history of America relating to the time of Columbus, books on Red Indians, and so on. The teacher asked pupils not to forget books of reference and periodicals like the *National geographical magazine*. The pupils made a division of subjects to search for reading materials.

Third meeting : The lists of books were considered.

The teacher pointed out certain lacuna and suggested means to fill them up. The teacher agreed to provide a special shelf for the books brought from different homes and picked up from the school library. A pupil undertook to be the librarian and learned the necessary technique to do his job without undue loss of time. He wrote to the public library and obtained every possible facility. Topics were allotted to the different pupils.

Fourth meeting : The diaries of the pupils were examined. The notes were exchanged and scrutinized. Gaps were shown. They were asked to write out their findings in the form of a chapter of a book.

Fifth meeting : The chapters were read and properly linked up and dovetailed. Illustrations were fixed upon and allotted to some, preparation of contents to another, index yet to another, the cover-design to the artists among them, and so on.

Sixth meeting : The book was read and enjoyed. Each was asked to cite his most favourite event in the affair. Many mentioned the rebellion on the ship and the way in which Columbus faced it. They decided to finish off by staging the event.

Seventh meeting : Arrangements for staging. Discussion about costume, stage lighting, scenic equipments, the words for the drama, the tickets and invitation, rehearsal, arrangement for feeding, finance, accounts, and so on. Allotment of different items of work. Agreed to manage everything without help from outsiders. The budding illumination engineer took charge of lighting and read up and learnt wiring. The anthropologist of the future took charge of the costume. The poet to be, wrote out the words, the future financier looked after the finance and accounts and so on.

Eighth meeting : Rehearsal.

Ninth meeting : Public performance.

Now I want you to think about this. Make a list of the basic sciences, the arts, the crafts, and the humanities that the members had learnt. Draw up a detailed programme showing how much and in what connexion the eighth method of learning would have been employed.

Work out similar projects focussed on the following : the Dasara, the Pongal, the Harischandra Natakam, the Local Panchayat, Slum Clearance.

82 VALUE

Project method synthesizes all methods, let me repeat ; it makes education creative ; it bases education on global experience. Here is a vision of it by a poet. Though it is children that are mentioned, it is equally applicable to adults—

Children are surrounded by a world in being,
 The outcome of every age and of every work of men,
 and of the earth ;
 By materials and tools, workshops and appliance,
 Inventions and models, pictures and maps.
 Everything that can be, is learnt by action and experience
 from the use and nature of things.
 Boys and girls together ; they are always busy, always
 happy, always free.
 They build and make gardens, are carpenters and cooks ;
 They print and read, weave cloth and paint, and do all
 kinds of work.
 Much of their life is passed camping in the open, playing
 in the sun, swimming and making journey.
 They create and control their own organizations ;
 They act and talk and sing and dance.
 Every instruction and information that they seek is
 accessible to them.
 Every experience of the past ;
 Every practice of the present ;
 All that they can imagine of the future.
 And when children leave school, they know the needs of
 the earth ;
 They are aware of their own capabilities and limitations,
 desires and dreams ;
 So that, thereafter, they are able to do the work they
 will, with all their might.
 The means to all knowledge is within their reach ;
 Truth is awakened in their hearts ;

They put forth creative energy in joy and happiness ;
In Love with all the world [26].

“ Pray in common, achieve in common, let there be
unity and understanding.

Alike be your intentions, harmonious your feelings.

And concerted your thoughts, so that there may be
complete union among you ” [35].

सं गच्छध्वं सं वदध्वं सं वो मनांसि जानतम् ।

समानो मंत्रः समितिः समानी समानं मनः सह चित्तमेताम् ।

समानी व आकृतिः समाना हृदयानि वः ।

समानमस्तु, वो मनः यथा वः सुसहासति ।

CHAPTER K

SAMPLE COURSES

0 Introduction

Let me illustrate the planning of the course with two classes of adult students in view.

1 Course for Potters

Suppose that they are mostly potters — say like what the students of the Subzimandi centre of Delhi can be made to be. Begin with the properties of clay — physical and chemical. Have some experiments for demonstration. One of the schools of the Municipality must be able to provide the necessary laboratory. In connection with the shape of pottery some mensuration can be taught in determining the capacity of vessels. A demonstration can be had to visualize the vibrations of a pot as a percussion instrument — as it is actually used by professional musicians playing on GHATAVADYA. Strength of bricks can be brought in and the factors determining it may be analysed. There are ever so many folk-songs on pottery, some profound spiritual songs using the analogy of potter's work, and stories centering round this craft. These may be made the means of linking up pottery and literature. The formation of names for different kinds of pottery may give opportunity to develop linguistic acumen. The statistics of production, distribution and consumption of ceramic industry for the locality, the country, and the world, and an account of large industrial and commercial houses engaged in the trade will widen the horizon. The history of pottery and their use in chronology and ethnology must lead to a visit to some neighbouring museum and a pleasant day spent in the evaluation of the exhibits. When the adults are sufficiently attuned to such an expansion of the field, it is desirable to lift up their view of the technique of their craft by a cinema

show or lantern slides visualizing the most up-to-date advanced type of ceramic technology and the research problems involved. It is not meant that every aspect will interest every one of the adult students. Such a wide spreading of the net will be able to catch and engage the interest of every one of the adults on some cultural or scientific aspect or other and thus widen his vision and field of interest.

2 Course for Seamen

While I was engaged on thinking along these lines, Mr Mangat, the Secretary of the Indian Maritime Union, came to discuss with me the promotion of adult education among the sea-faring people of our country. Bombay is the focal point of these people. He said that at any time about 1,500 of these are found collected in the hostels built for them by the Government. Most of these are obliged to stay on continuously in the hostels for about six months for one reason or another. This affords a splendid opportunity for their further education in formal adult schools. Their interest can be captured best if their course is organized round the nautical crafts. Here again a teacher with resource and imagination can plan the curriculum on the principle of progressive extension of the field of interest. Geography of the coastline of India, geography of the world, meteorology, oceanography including currents and tides, and reading of maps of all sorts can form the regions of the first extension. Commercial geography can be introduced so as to weave together the empirical knowledge likely to have been picked up by them. Maritime history and maritime law will have their due turn. The history and the ethnology of sea-farers, an account of the cultural contact brought about by seamen, the semasiology of nautical terms, dramas, stories, poems and songs with nautical themes, puranic, biblical, and other religious and mystical and occult references and interpretations of the sea will lend themselves as means of extending the interests of such adult students among the highways and byways in humanities

and social sciences. So also an extension can be made on the side of the sciences. Marine biology can easily be brought in. Astronomy, radar, chemistry of corrosion and anti-corrosives, physics of floating bodies, descriptive geometry, and several other branches of the fundamental and applied sciences can be brought into their field of interest.

CHAPTER L

SEMINAR TECHNIQUE

0 Introduction

The Group Study Method, mentioned in sec J5, should be continued by the adults even after leaving the formal Adult School. Indeed, the Adult School and the Public Library should co-operate with each other in the continuance of the Group Study as a form of follow-up work. This is one of the means of keeping up the interest of the adults to continue their self-education. But Group Study can be kept up only at the strictly local level.

01 SEMINAR METHOD

It is desirable to extend the Group Pursuit to beyond the local level. Some of the abler adults in the different localities of a district will get enthused by such an extension of Group Pursuit. They should, therefore, be persuaded to carry out Group Pursuits on a district basis. A District Group cannot meet from day to day or from week to week as a Local Group can. It can meet at a stretch only for a few days — say once in a year. Such a meeting should be turned on a thorough discussion and understanding of a chosen topic of common interest. As a result, Group Method gets transformed into Seminar Method. The Seminar Method is a product of democracy. This method ensures the active participation of all the participants. It avoids the faults of Class Room Method and Conference Method.

02 CLASS ROOM METHOD

ONE-WAY FLOW OF THOUGHT

In the olden days, society was able to take things easy. This was due to low population pressure. The needs of society were easily met by a few exceptionally

gifted people alone doing all the thinking for Society. Equals seldom met for team-work. They met, if at all, for contest, for competition, and for showing forth their relative superiority. Normally, the tradition was to administer learning through instruction, rather than through discussion on a footing of equality or sympathy. The master expounded ; and the disciples listened passively.

021 Old Tradition

Strictly speaking even instruction is best given by mutual discussion between the master and the disciples, rather than by *ex cathedra* talks. In fact the correct method for master-disciple-instruction has been described as follows in the Vedas [27].

“ The master is the pre-form
The disciple is the post-form
Knowledge is the result
Discussion is the means.”

आचार्यः पूर्व-रूपम् । अन्तेवासि उत्तर-रूपम् ।
विद्या सन्धिः । प्रवचनं संद्यानम् ।

The tradition of the older universities, such as Oxford and Cambridge, is also similar. It is tutorial work.

022 Non-stop Lecture

This kind of two-way flow between the master and the disciple requires great resourcefulness on the part of the master. Group-discussion by a number of participants is more variegated and profitable than discussion between the two persons. But the greater the number of participants, the more arduous becomes the work of the master. And yet democracy brought a larger number of people seeking knowledge for some reason or other, the two-way flow yielded, gradually, to a one-way flow. Non-stop lecture has been the result.

023 Result

But lecture from morning to evening and from day to day blesseth neither the master nor the disciples. Indifference sets in. It gradually gives place to restlessness. It ends in indiscipline and revolt. This is the experience in colleges. But, the adults simply absent themselves.

024 Seminar Method

The remedy is to restore two-way flow. The technique of fruitful all-participating discussion under the direction and control of the presiding leader has to be worked out. It is now being done. The resulting group-discussion method is the Seminar Method. This is available for the follow-up work in Adult Education.

03 CONFERENCE METHOD
BACK-BENCHERS

During the last century, the method of conference came much into vogue. In this method, quite a large number of people meet. But, only a few radiate through their speeches. The many merely absorb thought. This method was quite useful when the objective was to step up the emotion of a large group of people. It proved effective in our own country in pre-Gandhian era. Mahatma Gandhi made effective use of the conference method to fire the emotion of our people in regard to their political rights. Some of his speeches came to be attended by even 100,000 people. Many parliaments are functioning mostly along these lines. A few front-benchers, who have the 'gift of the gab', do all the talking. The back-benchers merely listen and vote according to the whip.

031 Attempt at Correction

Of late, the British Parliament has begun to correct this. Each Party sets up study-groups for several of the subjects coming up before Parliament. Most of the members — particularly the younger ones — get an opportunity to work in these study-groups. The library

of the Parliament itself has appointed a few documentalists to serve them. These are librarians. They prepare an annotated bibliography of all important published materials on the subject coming up for consideration. They also make the materials themselves accessible to users. The aim is to put the Parliament's work in public on right rails by making every member of the Parliament make his contribution in the meetings of the study-groups.

032 Population Pressure and Democracy

Moreover today the balance between population pressure and the free gift of nature by way of food, shelter, and clothing, has been hopelessly upset. Dependence upon investigation by a few first-rate people alone is proving inadequate. We have to press into the work of investigation quite a number of people of low order. This meets also the demand of democracy to give equal opportunity for every one to develop to the fullness of his own personality and to make his own intellectual contribution to society. Neither the classroom method nor the conference-method is suited to this purpose.

033 Seminar Method

To meet the situation, a new method of investigating subjects is being evolved during the last two decades. The Americans call it Workshop-Method. The British call it Working-Party Method. The Americans call it also Seminar Method. UNESCO — the world-organization for investigations of a fundamental nature, relating to education, science or culture — has adopted this term. Therefore, the term "Seminar" is getting more into vogue to denote the new method. I have taken part in UNESCO Seminar as well as in American Workshop. I have also seen reports of British Working Party. They all denote more or less the same method. In this method, there is neither one-way flow from teacher to taught, nor formation of front-benchers and back-benchers. All get an equal chance to contribute, to

express, to learn, and to grow. The essential new element in modern seminar technique relates to investigation, not by a small group, but by a large body of participants from different areas within a nation, or different nations, or different cultural groups. These bring their distinctive experiences. These are pooled together. The outlook gets widened. Enthusiasm gets heightened. Efficiency gets intensified.

04 FATAL VIEW

In its incipient form, the essence of mutual discussion and all-round participation may be found in good family circles. It may even be in vogue in circles of friends. But these are all small-scale affairs. These are often casual. Such informal group-discussions are seldom concentrated on a single topic. Nor are they based on adequate planned preparation. The findings are seldom recorded. To have them in view and to say that seminar method is ancient is of the same order as saying that our ancients were experts in air-craft building and air-navigation, because kite-flying had been in vogue from ancient times, or Valmiki's *Ramayana* describes air-flight from Ceylon to Ayodhya, or because of Samuel Johnson's *Rasselas*. Many of the anatomical features, physiological functions, and ecological response of man had their incipient correlates in the earliest forms of life. To say this and to stop there is to court sterility. This is a fatal view to take. To take Sanatkumara's narration of future events to Saunaka and other sages in Naimisha Forest, or the coffee-house discussions of Samuel Johnson, or the river-side parleys of grannies, as the proto-type of modern seminars may be pleasingly fanciful. But to cite them as reasons for the absence of any need for forging a proper seminar-technique and improving it continuously, is fatal. It will appeal to the inherent inertia in man. It may even elicit a round of approbation and clap of hands. But it will sap all initiative. It will arrest progress. It will tie us eternally to the past.

05 NEW TECHNIQUE

The Seminar Work now being evolved has many new features. These make a new name necessary to denote the method. We may call it Seminar Technique. Long and careful preparation is needed to make a seminar fruitful. The mental powers of a large number of people are to be turned on the same problem. At a stated short interval of time all are expected to work together on the same problem. All have to live at a high level of energy throughout the seminar period. It has to be backed by an efficient and well-organized secretariat service. Communication between participants has to be kept at a high level of efficiency and promptness. Indeed a new technique is being evolved only in our own times to harness Seminar Method to the greatest advantage.

06 SIX STAGES

Six stages can be recognized in a seminar :

- 1 The posing of the subject in a preliminary working paper ;
- 2 Preliminary contribution by prospective participants ;
- 3 Producing a detailed and provoking explanation of the preliminary working paper ;
- 4 First round of Plenary Sessions to break down the subject of the seminar first into a few major divisions and later to atomise in succession each of these major divisions into several ultimate units ;
- 5 Grappling with the several ultimate units in small group meetings ;
- 6 A second round of Plenary Sessions for reconciling and finalizing the digest of the findings of the groups.

07 LEADER-IN-CHIEF

Conduct of at least one seminar in a year should be an essential part of the duty of a District Social Education Officer. He should work as the Leader-in-Chief of

the seminar. He should organize it with considerable forethought. He should choose the theme for the seminar well in advance. In this, he should have informal consultations with the prospective participants. He should bring about the selection of one or two competent and worthwhile participants from each of the localities in the region. The following Seminar Technique may be useful in organizing a seminar.

I Before the Seminar Meets Leader-in-Chief

The success of a seminar will depend upon two essential factors :

1 The work done till the Seminar meets, that is, the preliminary working paper, receiving the preliminary contributions of the participants, and the production of a provoking presentation of the subject. To do this work efficiently, the Leader-in-Chief must come into the picture at least six months before the time of the seminar. He should be hard working and systematic. He must keep an open mind. But he must not be afraid of making the presentation mentioned as the third stage in a provoking way. He must be prepared to be misunderstood to be a partisan for a particular view. But in reality he should have no preconceived, rigid, opinion ; and

2 It is equally essential to register the prospective participants at the very start. Then only the Leader-in-Chief can get on with his work. He must prepare a preliminary Working Paper, communicate copies of it to all prospective participants, and attend to the third stage mentioned in section 4 of this Chapter.

2 Steering Committee Detailed Working Paper

In the first Plenary Session the participants must be divided into small groups with not more than ten and not less than three members in each. The members of each group should generally be heterogeneous rather than homogeneous. Then only all points will be con-

sidered by each group from diverse angles. A capable man should be chosen as the Group-Leader for each group. The Leader-in-Chief and the Group-Leaders should be constituted into the Steering Committee. Each night, beginning from the day preceding the first Plenary Session, the Leader-in-Chief should place before the Steering Committee, a Working Paper on the topics to be presented on the next day to the Plenary Session and to be perused by the groups on the day after. This Working Paper should be in the form of a series of questions to be answered by the groups. Wherever necessary, annotations should be given. Distribution of a select documentation list also may be helpful. In the Steering Committee, Group-Leaders should all post themselves thoroughly with what is aimed at in the Working Paper. The interpretation of the Working Paper at the Plenary Session and in group meetings will depend upon their ability to understand it properly. One fault should be watchfully avoided. There should be no drift towards imposing the leaders' own pet preconceived notions instead of merely posing the questions for discussion and decision by the groups. A good deal of self-discipline is necessary to do the work of the Steering Committee with an open mind.

3 First Stage Plenary Sessions

In the afternoon of each day, about an hour should be spent in the Plenary Session. At this session, by rotation one member of the Steering Committee should explain the full implications of the questions put down in the Working Paper. Even here he should not disclose his own opinion or decision in the matter. If at all, he should only suggest possible decisions — but never a single decision which is after his own liking. The members of the Steering Committee should zealously watch the casual incidence of such a trend. They should not allow themselves to seek to influence the participants by their own preconceived decisions consciously or unconsciously. They should not confuse the issue. Questions to be raised and discussed under other topics should not

be dragged in as they would hinder discussion.

4 Group Meetings

The ideal is for each topic to be discussed by each group. The least that we should do is that each topic is discussed at least by three or four groups. Each group should elect a reporter. As far as possible every member of the group should be given an opportunity to function as a reporter at least for one meeting of his group. Some of the participants may put in their appearance only on formal occasions. Some others may attend only one or two of the several group-meetings. This takes away from the value of the seminar. All the participants should take active part in more or less all the group-meetings. For one thing, excursions should be segregated to whole days either before or after the days set apart for deliberation. The mental set needed for hard and serious thinking is otherwise smothered. Fatal reluctance to take off the coat and dive deep into the subject takes possession of the mind, by the interpolation of excursions.

41 GROUP-LEADER

The Group-Leader has a great responsibility. He must have a complete grasp of the entire break-down of the subject into major topics and each topic into its ultimate units. While discussing one topic or ultimate unit, he must see to it that other topics or ultimate units are not brought in. All the others should, so to speak, be eliminated or replaced by certain fairly good assumptions. The absence of this technique will cause confusion even in the first round of Plenary Sessions. I wish that we all have an opportunity to read a delightful book on this subject. It is called *How to solve a problem*. It is by Polya. Polya was formerly Professor of Mathematics at Warsaw in Poland. He later went to the Stanford University in America. I had met him there. His book is full of commonsense. It will be of immense help in conducting seminars. The method of discussion should be not to raise and solve all difficulties at one time.

We should take one problem at a time and solve it properly. We should then take up the second problem. We should solve it independently. We should do like that successively with each problem. We should in the end examine the result of taking all the problems simultaneously.

42 DIVIDE AND RULE

It is truly one of the Panchatantras — Divide and Rule. It was a device applied on us by the British so successfully, until Mahatmaji more or less brought us together. This method is invariably employed in solving problems in mathematics, physics, chemistry, and the biological sciences. This method is nowadays also being employed in economics and other social sciences.

This method of "Divide and Rule" should be continued at deeper and deeper levels got by a further and further break-down of problems into ultimate elements. The Leader's skill really consists in arranging the problems of attack in the most helpful sequence. Suppose A, B, C, D is the most helpful sequence. It is often found that by the time A is solved, B shrivels up into a very small problem. C and D often present hardly any alternative. They present no problem. They get solved automatically. If, on the other hand, we start with problem D, there is utter confusion. It does not easily yield itself to analysis and solution. C also baffles us when its turn comes. We get tired. We throw up our hands in despair. Here the Leader-in-Chief can contribute a good deal by arranging the issues for consideration in a most helpful sequence. The Group-Leaders should be prepared to understand the significance of the sequence given by the Leader-in-Chief. They should be sensitive to any advantageous change of sequence, suggested in the group discussion. They should make the change as the need for change emerges.

43 GROUP-REPORT

The decision of the group on each question should be stated briefly and in precise language. Nothing but

confusion will ultimately arise by using loose language on the plea of being popular. Seminar Work is precision-work. It is intellectual work. There should be no rhetoric. There should be no play of words. To be afraid of technical terms is to miss the purpose and the true technique of seminar.

44 COMMUNICATION

Copies of each group-report should be handed over to all the members of the seminar before the evening of the day in which the group considered the problem. This will be difficult if time-table is faulty. The group-meetings should be over early in the afternoon. It is helpful to have the group-meetings in the forenoon and continue and complete them in the earlier part of the afternoon. It is also desirable to call for an interim report at the end of the forenoon meetings. Then, the final report can be drafted quickly in the afternoon. It can be released early enough for copying and circulation.

5 Second Stage Plenary Sessions

51 DIGEST OF GROUP-REPORTS

The next business is to collate the findings of the different groups on each problem. Much judgment will have to be exercised to weigh the decisions of the different groups. Trivial and non-significant variations should be overlooked. The consensus of opinion of the different groups should be enunciated in the form of draft findings to be put up before the second round of Plenary Sessions. If there be opposing or serious alternative findings, these should be indicated in a note as "alternatives".

52 SHARING THE WORK

This work of digesting the group-reports takes time. But the interval of time between the group-meetings and the second round of Plenary Sessions is very short. The Leader-in-Chief cannot with comfort do the digesting work for all the problems. This work should be shared by all the Group-Leaders. The digest of

findings should be supplied to all the members of the seminar sufficiently early to enable them to study them before coming to the Plenary Sessions.

53 FINALIZING FINDINGS

In the second round of Plenary Sessions, the findings should be finalized. There is no need to discuss unanimous findings of groups. Therefore the controversial findings should be indicated by some device (*) in the digest paper. These alone need be discussed. Each finding should be presented in the form of a definite proposition. The opposing group should formulate their decision in the form of proper amendments. The usual parliamentary procedure should be followed to dispose of the amendments first and the amended propositions thereafter. It is necessary that the other rules of parliamentary procedure should also be followed. For example, nobody should talk more than once. Nor should anybody repeat an argument already presented by another, etc. It requires self-discipline to form the habits of respecting this rule of procedure. A good deal of time is usually wasted and confusion is caused by not expressing an alternative view in the form of an amendment — except of course when it was a negative — to the finding of the majority. Often it happens that the same two opposing persons often tend to talk quite a number of times alternately, without bringing out any new point or argument. By this, a good deal of time may be wasted. Even disgust, inattention, and non-participativeness may be caused in others.

6 Secretariat

61 BEFORE THE SEMINAR

Next to the ability of the Leader-in-Chief and the Group-Leaders, their analytical approach to the problem, and their unbiased guidance at group-meetings and in plenary sessions, the success of a Seminar depends largely on secretariat help. Time is of the very essence of every item in the work of a Seminar. The first three stages of bringing out the preliminary Working Paper,

digesting the preliminary replies received, and the bringing out of the provocative presentation should be done strictly according to time-table, so that the provocative presentation is in the hands of the participants at least one month before the Seminar. This requires considerable secretariat work.

62 AT THE SEMINAR

During the Seminar itself, the draft Working Paper for Group-Meetings, containing the first break down of the subject, should be released for the first round of Plenary Sessions on the morning of the day on which it is to be considered. This alone will give time for the participants to study the working paper in a leisurely way before coming to the Plenary Session. Again the Group-Reports should be copied and supplied to all the participants before night-fall on the day of the meeting of the group. This alone will give time for the participants to compare their own conclusions with that of the other groups. Similarly copies of the digest of findings should reach the hands of the participants on the day before the second round of the Plenary Sessions in which it is to be considered.

63 STRENGTH OF STAFF

In a Seminar we may have to have many Seminar Papers. These should be put through by the Secretariat in a few days. This is apart from other work like issue of Information Bulletin and routine correspondence. The secretariat will have to do a good job of it. But the volume of work is seldom assessed fully. Therefore, the secretariat is often overworked. This is bad. We should provide an adequate secretariat staff. To grudge money in strengthening the secretariat staff is to throw away the large amount of public money and the time otherwise spent on the Seminar. People come from distant places. Everything should be made easy for each of them to make their contribution in their fullest measure.

64 CARD TECHNIQUE

Time has come to save time and secure efficiency with the use of Card Technique. Three cards or tough slips should be prepared for each participant as and when he registers himself. One should be filed alphabetically by name. Another set should be grouped by the localities of the members. This will be of help in several ways, and particularly for mailing work. The third set should be used to follow up the participants' work in group-discussions. Much of the work can be mechanized in this way. This will result in a profitable division of labour between phases of routine work and non-repetitive, non-mechanizable, deliberative, and editorial work. Half of the time of the Editor of the final findings could be saved thereby. A good deal of the worry could be avoided before and during the Seminar. The entries for each of the cards should be functionally designed. This is a detail to be varied with the circumstances of each Seminar. I am not going into them in this short account. The guiding principle should be Elimination of Waste in Time, Materials, and Man-power.

7 Venue

The venue of the Seminar should be a quiet countryside place without any centre of distraction. The participants should give up the old conference habit of coming to the conference and spending most of the time on sight-seeing. A Seminar is a serious affair in which every one has to work hard. The participant should come with a determination to work co-operatively and intensively throughout the session. In a Seminar in Chicago, which I attended, all the participants put in nine hours of work each day. Social entertainments and excursions should be totally avoided or should be set aside either to the day previous to the Seminar or one or two days after the Seminar. Yes. Hard work is necessary. There are moments when man can put forth a hundred times more work than usual. This he can do without feeling the strain. We do it for a long stretch

of years during war or war-like times. We do it for a week or two at a stretch during marriage and other festive occasions. Prime Ministers and similar leaders have to do it for years during the period of their office. Participants in a Seminar can do it for a week or for a month. This is not impossible. James discusses this problem in his *Levels of energy*.

71 PHYSICAL COMFORT

Food, bath, and public conveniences should all be as good as possible. All the participants should live under the same roof. They should dine together. They should have their games and physical exercises together. This mix-up will make them live the subject of the Seminar continuously throughout the period of the Seminar. As the Gita says [28]

Though, seeing, hearing, touching, smelling,
eating, walking, sleeping, breathing,
speaking, dropping, catching, winking,
one should be in perfect rhythmic
response to the subject of pursuit.

पश्यन् शृण्वन् स्पृशन् जिघ्रन् अश्नन् गच्छन् श्वपन् श्वसन् ।
प्रलपन् विसृजन् गृह्णन् उन्मिषन् निमिषन् अपि ॥
ब्रह्मणि आदाय कर्माणि संगं त्यक्त्वा करीति ।

Their mind should be totally absorbed in the subject of the Seminar.

8 Over-all Objective

The over-all objective of the seminar is to tackle a problem collectively. It is done by each participant practising work-chastity during its period. The Seminar should release and harness the creative power of each participant. The creative work should be done in concert with all the participants. The spirit of co-operative team work should be dominant in the Seminar. The co-operative spirit needed has been well described in the Vedic literature. [29]

“ Let us live together. Let us dine together,
 Let us do daring deeds together. Let us
 beget inner energy by our joint study.
 Let us not indulge in mutual hatred.
 Om ! Peace, Peace, Peace, Peace !!

ओम् । सह नौ अवतु । सह नौ भुनक्तु ।
 सह वीर्यं करवावहै । तेजस्वि नौ अधीतमस्तु ।
 मा विद्विषावहै ।
 ओम् । शान्तिः । शान्तिः । शान्तिः ॥

81 DEMONSTRATION

An account of a demonstration of the Seminar
 Technique will be found in the *Literature for neo-literates*.
 [30]

CHAPTER M

ILLUSTRATIVE ACTUALITY

0 Introduction

The following adaptation from a well-known authoritative book of reference [31] gives a concrete picture of the achievement of Russia in adult education and the extent of secondary activities which a successful pursuit of the rehabilitation of the masses had implied. [31]

1 Liquidation of Illiteracy

Pre-Revolutionary Russia was a country of exceptional cultural backwardness. The Revolution opened the road to knowledge to the masses of the people. The first essential was to overcome the worst heritage of the past — mass illiteracy. The decree on the elimination of illiteracy was signed by Lenin as far back as 1919.

11 ACHIEVEMENT

If only the working age—from sixteen to fifty years—is considered, the result is shown in the following figures:

Whereas at the time of the census of 1897 the percentage of literate men was 33·7 and of literate women 11·7 ;

The figures for 1920 were 44·6 and 25·8 respectively ; and

Those for 1926 were 58·2 and 34·6.

The percentage of literacy in the Soviet Union, which at the beginning of the First Five-Year Plan period was 58·4 per cent had risen to 90 per cent, by the end. About 45,000,000 people became literate all over the Soviet Union during the First and Second Five-Year Plan periods. Some regions and territories have achieved practically universal literacy — the Lower Volga region 96 per cent, the Leningrad region 98 per cent, the Moscow region 98·7 per cent, and so on.

2 Literacy School

In 1935 literacy schools throughout the Soviet Union were attended by 3,977,315 persons (621,425 in the towns and 3,355,890 in the country). There were also 107,232 schools for semi-literates employing 161,612 teachers and attended by 3,892,752 persons, and 3,793 more advanced schools for adults following the programme of the incomplete secondary schools, with 13,403 teachers and 207,491 students. Since this scale of work with illiterates and semi-literates was not found sufficient by the leaders of the Soviet Union, a special decision of the Council of People's Commissars and the Central Committee of the CPSU, published by February 27, 1936, called for further vigorous measures in 1936 and 1937 to ensure the complete elimination of illiteracy among the entire toiling population under fifty years of age. A programme has been drawn up for 1936, according to which 6,000,000 illiterates and 4,500,000 semi-literates were to receive instruction. At the same time the People's Commissariats of Education, the trade unions, and the Young Communist League have been charged with enrolling in special schools, following the programme of the elementary schools, all adolescents between the ages of fourteen and eighteen without elementary education. All these measures have been applied with the necessary organization and funds. A single study plan for schools for illiterates and semi-literates has been drawn up. The State publishing houses were instructed to issue in 1935 about 30,000,000 text-books for these schools in the various languages of the population of the country, and also to publish large editions of popular *belles-lettres* and social and economic literature for the general reader. The organization of direction and control in this branch of education has been improved and extensive steps have been taken to mobilize the Soviet public in the struggle for universal literacy.

3 Publication

The introduction of universal literacy in such a vast

country under the conditions of the new social order gives rise to an unprecedented demand for the printed word, which acquires exceptional importance as an educator and organizer of masses.

31 NEWSPAPER

The Soviet newspapers are successfully playing their honourable and highly responsible part. Their numbers and circulation are growing at an unheard of rate ; 859 papers with a total circulation of 2,729,000 were published in Russia in 1913, the number published in U S S R in 1934, was 11,873 with a total circulation of 30,753,000 ; in 1935 the circulation reached 37,000,000, and the plan for 1936 called for 39,000,000. A characteristic fact is that about three quarters of all the newspapers are rank-and-file papers actually and immediately organizing the masses (factory, collective or state farms, political department, institution or school papers), and about one-fifth are local (city or district) papers.

32 MAGAZINE

The publication of magazines and books is also growing. 1,859 magazines were published in 1934 in the U S S R in forty-eight languages, with a total circulation of 173,313,000 copies, the total number of impressions being 588,382,000.

33 BOOK

The growth of book publication in the 105 languages of the peoples of the U S S R is shown for the years noted below :

Year	Number of titles	Total copies	Number of impressions	Average edition
1913	28,132	113,400,000	587,000,000	4,031
1928	34,212	266,706,000	1,407,849,000	7,976
1932	49,880	518,319,000	2,374,940,000	10,391
1933	43,587	488,022,000	2,385,445,000	11,196
1935	42,698	458,045,000	3,014,174,000	10,728

*Final complete estimates of the book production of 1935 give about 43,000,000,000 impressions.

The plan for 1936 provided for a total of 5,120,000,000 impressions in book and magazine publication.

34 BELLES-LETTRES

A very important role in cultural development and political education of the masses belongs to *belles-lettres*. In 1933, the number of books published was 2,638, the number of copies being 32,441,000 and the number of impressions 197,290,000. In 1934 the corresponding numbers were: 3,414 titles, 45,580,000 copies, and 275,762,000 impressions. For 1936 the production of the State Publishing House for *belles-lettres*, in the Russian language only, was 24,200,000 copies against 5,500,000 in 1932. A large proportion of these books are editions of the classics of the Russian and world literature. The preparations for the centenary of the death of the great Russian poet, Alexander Pushkin (February 10, 1937), became a powerful cultural movement deeply penetrating into the masses of Soviet people.

35 NEW AUTHORS

A new Soviet literature in the numerous languages of the nationalities of the U S S R is arising. Soviet writers organically participate in the great work of Socialist reconstruction and are favoured with very great attention by the reading public. A striking manifestation of that attention was shown during the All-Union Congress of Soviet Writers in 1934. The Writers' title as "engineers of human souls" adequately expresses the educational function of literature in the land of Soviets.

4 Library

Books, magazines, and newspapers are conveyed to the mass of readers through an extensive system of libraries, the growth of which is shown below:

Growth in system of libraries from 1925-26 to 1934

Year	Number of libraries	Number of books	Year	Number of libraries	Number of books
1925-26 ...	22,163	57,552,000	1931-32 ...	27,064	91,134,000
1927-28 ...	22,294	62,313,000	1932-33 ...	32,456	91,484,000
1928-29 ...	28,361	66,511,000	1934 ...	50,569	92,573,000

41 BACKWARD AREAS

Particularly noteworthy is the growth of libraries among formerly backward nationalities who received the opportunity for free cultural development only after the Revolution. The Tartar Republic, for instance, which before the Revolution had a practically illiterate population and no public libraries at all, now has a 90 per cent literate population and 1,532 stationary and 1,047 travelling libraries with a total of 4,833,777 books.

42 SUBJECT-SCATTER

A partial survey carried out in 1933 showed that, in the Soviet mass libraries, the first place as regards the number of books is occupied by *belles-lettres* (25 per cent), the second place by social and political literature (22 per cent), the third place by literature on applied science (16·6 per cent), the fourth place by children's literature (10·4 per cent), the fifth place by historical and geographical literature (6·6 per cent), the remaining books deal with other sciences (9·8 per cent), religion (3 per cent), and physical culture and sports (1·5 per cent).

43 URBAN AND RURAL LOCATION

The mass public libraries constitute 43·7 per cent of all the stationary libraries in the country ; the rest is made up of children's libraries (10·3 per cent). According to the figures of the national library census there was a total of 67,286 libraries on October, 1, 1934 — an average of one library per 1,646 inhabitants. The number of books owned by them totalled 270,869,600. The libraries had 103,558 travelling branches and employed 55,198 professional librarians assisted by many thousands of social workers. Of the total number of libraries, 39,421 possessing 32,451,400 books and 34,909 travelling branches managed by 20,370 librarians are located in the countryside. All libraries are open to the public, free of charge.

44 ORGANIZATION

The libraries of the Soviet Union are in charge of various organizations and institutions, but the general direction of all of them is entrusted to the Library Boards of the People's Commissariats of Education and their regional, district, and local bodies. The libraries conduct educational work among their readers and study the interests of the latter. Librarians are trained in various special courses, in library schools and institutes, and also by means of correspondence courses. Bibliographical work is conducted by critical bibliographical institutes and by the Book Chambers of the constituent republics and of the U S S R. Institutes for scientific research in library work also exist.

5 Other Agencies

51 MUSEUM

Another important place in adult education is occupied by museums. Before 1917 Russia had less than one hundred museums, some existing only on paper. After the Revolution the number of museums increased very rapidly. In Ukraine, where only 14 museums existed before 1917, there are now 120 museums; Transcaucasus had two museums, and now there are 48, in Uzbekistan 15 museums exist now instead of 2, and in Turmenistan, 7 instead of 1. Valuables formerly hidden in palaces, detached houses, and country-seats of nobles and big capitalists became national property and were transformed into museums. On January 1, 1935, there was a total of 768 museums in the U S S R more than half of which (393) were devoted to the study of particular regions, while the rest dealt with the following: 57 with art, 56 with branches of industry, 53 with the history of the Revolution, 45 with history, 44 with health production, 42 with natural science, 27 with religion, 18 with general technology, 8 with education, and 25 other museums. Soviet museums do not confine themselves merely to passively exhibiting their materials but actively assist their visitors. According to the data for 652 museums the

numbers of visitors in 1934 totalled 20,896,400 of whom 8,241,300 came in excursions, the latter numbering 369,810. The museums, which before the Revolution had very little or no educational significance for the numerous nationalities of the country, now enlarged and rebuilt on new principles, have become an instrument of culture and education (especially of international education) of the masses.

52 CULTURAL CLUBS

Clubs of various kinds serve as centres for the cultural activity of the masses in town and country. On January 1, 1935, they numbered 60,083 of which 46,898 were located in the countryside. The mass work of the clubs consisted in organizing lectures, theatre and cinema performance, concert excursions, etc. More thorough and systematic cultural work in the clubs is conducted in their political, industrial, scientific, literary, anti-religious, dramatic, musical, singing, art, sports, defence study, and other circles. In 1934 there were 62,378 circles with 1,959,288 members in the 15,703 clubs investigated.

53 PARK OF CULTURE AND REST

Another similar institution that had developed during the last few years is the "park of culture and rest", which on October 1, 1935, numbered 228. These parks possess the most varied means for rest and cultural development, *e.g.*, libraries and reading rooms, theatres, stages for light plays, orchestras, cinemas, amusements, radio, scientific and technical laboratories, stadiums, swimming and rowing stations, skating-rinks, skiing stations, shooting ranges, rest homes, children's playgrounds and others.

54 THEATRE

A high level of development has been achieved by the theatre. Pre-Revolutionary Russia had only about two hundred theatres. On January 1, 1935, permanent theatres and circuses throughout the country numbered

617 and 56 respectively. Located in the countryside were 105 state and collective farm theatres. Of the city theatres 338 put on dramas and comedies, 32 dramas alone, 26 operas and ballets, 29 operettas, and 8 variety shows. In addition there were 82 theatres for children and adolescents. Performances in the Soviet Union are given in 50 languages. The theatres enjoy great popularity, in 1935 there were 714,000,000 paid attendance and a considerable number of free attendance. The theatre is continuing to develop; in 1936 theatres were to increase in number to 768, and circuses to 95 (with 250 theatres in 27 cities). There are also about two hundred musical organizations throughout the Soviet Union (musical theatres and musical schools not included).

541 Foreign Plays

The art of the theatre is highly developed in the Soviet Union. A number of its theatres (the Moscow Art theatre, the Vakhtangov theatre, the Meyerhold Theatre and others) are well-known in other countries. Side by side with plays of Soviet writers a very important place is occupied in the theatres by masterpieces of the classical dramaturgy (for instance, many Shakespearean plays are produced in the best theatres of the Soviet Union).

542 Amateur Players

During recent years theatre culture has penetrated far among the masses of the people and has called forth extensive activity. At the present time dramatic circles with a total membership of about 2,500,000 exist throughout the country. All nationalities of the U S S R are active in this art movement. During the last few years a part of such dramatic circles became semi-professional theatres, especially among formerly backward nationalities (Marians, Udmurts, Kalmusks, Mordvins, Khakassians, etc.). New cultural centres — Houses of Mass Art Activities — have been established in several cities. Amateur art olympiads are also arranged.

Especially remarkable are the achievements of the circles of certain Trade Unions and of the Red Army. The variety of forms of art engaged in by the circles is very great. Members of the circles, with few exceptions, do not wish to become professional performers: they are simply using their leisure to bring out their latent abilities. In 1936 this movement gave rise to a new theatre in Moscow — the Folk Art theatre, where all except professionals may perform. During the first half of 1936 about 10,000 amateurs belonging to the most varied social groups and occupations performed on its stage, meeting with great success.

55 MOVING PICTURE

Even more widespread are the moving pictures or cinemas, as may be seen from the following table. In 1935 the number had risen to 35,000 and 43,700 are planned for 1936.

		1928	1934	1935
Mounting pictures	11,934	11,935
Stationary cinemas	5,759	12,725	13,292
Travelling cinemas	1,491	14,793	14,571
Total		7,250	39,452	39,798

Rapid development has been achieved by the sound cinema which was introduced only a short time ago; in 1934 cinemas with sound installations numbered 498, whereas by 1935 the number had risen to 1,050, and by 1936 to 2,285. In 1936 it was planned to increase the number of sound cinemas to 11,000, the total number of cinemas reaching 43,700. The big investments in the cinema industry (260,000,000 roubles in 1936 as against 130,000,000 in 1935) enable the latter to produce films and apparatus in large quantities. The plan for 1936 provided for the production of 85,500,000 metres of film and 61,200,000 metres of moving picture. Soviet films maintain a high level as regards content, art and technique, and have become an effective instrument for

implanting culture and education among the people.

56 RADIO

Another means used for this purpose is the Radio. On January 1, 1935 the Soviet Union possessed 67 broadcasting stations, with a total capacity of 1,202,800 and 2,091,900 receivers. Soviet programmes in 1935 consisted of 64.5 per cent music, literature, and theatre broadcasts, 15.8 per cent information, 11.6 per cent mass propaganda and physical culture broadcasts, 3 per cent study material, and 5.1 per cent miscellaneous.

6 Voluntary Society

Finally, mention must be made of the considerable part played in cultural development by various voluntary societies, with a membership of many millions, for various forms of cultural activity. For instance, physical culture and sport societies had in 1936 about 8,600,000 members; among them 2,035,000 women. Touring and mountain-climbing became a mass movement. The achievements of the Soviet chess-players are very high. Various kinds of cultural utilization of leisure by city and country working people are in progress.

7 Training of Personnel

The re-training of teachers — The shortage and inadequacy of the available educational personnel for the vast cultural development undertaken by the Soviet caused the new Government to devote much attention to the training of new personnel for all branches of public education. Numerous teacher-training schools, differing in different republics and at different times, but gradually and steadily supplying the new demand for educational workers, were established. It should be added, however, that these requirements, growing at a great rate, are not as yet fully met.

8 Research

Public education in the U S S R is served by twenty-eight scientific research institutes; laboratories, and

other institutions which in 1935 employed 704 scientific research workers and 130 assistants. On January 1, 1935, 235 graduate students were receiving training in those institutions for research work and for lecturing on education in higher teacher training schools.

The critical examination and selection of the best elements of the educational achievements of all times and countries and their applications in the interests of Soviet education form an essential part of Soviet scientific research in this field.

81 UNCRITICAL ADOPTION

During its early years Soviet education lacked a fully formed theory and actual contact with practical work. Abstract discussion prevailed, while various theories and methods proposed by foreign "progressive" educationists were adopted uncritically. This found most striking expression in the theory of the "dying out of the school" and the uncritical adoptions and mass introduction of the "project method".

82 CRITICAL RE-THINKING

These facts were vigorously criticized by the Central Committee of the CPSU in the decision mentioned above. In its decision on September 5, 1931, the Central Committee charged the research institutes to concentrate their work mainly on 'studying and generalizing the experience accumulated by the schools in their practical work'. During the last five years all scientific research work in the field of education has been reorganized with these instructions. The situation is still unsatisfactory, a fact which the decision of the Central Committee of the CPSU of July 4, 1936, attributed to the survivals of the theory of the "dying out of the schools" with its neglect of the teacher and the school, and the existence of the anti-scientific theory of "pedology". This latter uncritically adopted reactionary and non-scientific theory evolved abroad to the effect that a child's fate is irrevocably determined by heredity and by unalterable environment and neglected the powerful factor of

socialist education, the effectiveness of which is constantly increasing under the conditions of the new social order. It generally applied standardized mechanical measurement of children's intelligence and achievement and other methods leading to various false, pseudo-scientific conclusions in theory, and to measures harmful to the children and the schools, in practice. It was, therefore, determined to denounce and condemn pedology, eliminating its practical application, to "fully reinstate educational science and the educationalists in their rights".

83 TURNING OVER A NEW LEAF

The Soviet science of education, rid of the mistakes and distortions of past years, based on the vast practical experience of the Land of the Soviets in the field of socialist education and on the best elements in the heritage of the past, fostered by attention by the ideological leaders of the Soviet Union, is now turning over a new leaf in its history.

CHAPTER N

GOVERNMENT'S ROLE *

1 Appeal to Government

No doubt a course of adult education like the one developed here will have to be extremely flexible. Each day's work and the quantum of extension of the field of interest which can be attempted at each stage will have to be determined from day to day. It is a case of emergent evolution. To ride on it with success, the teacher must be a very able and highly organized person. He would cost much. He should be given special training too. This again will add to the cost. This must be provided. Otherwise, we shall have only make-believe adult education. It is not worth having. It is curious how people, even industrial magnates and government officers, expect to draw adult education out of nothing. That is why it has all along been all talk and little achievement. We cannot afford to indulge in this kind of self-delusion any longer.

2 Blind Imitation

There is another danger to be avoided in framing the curriculum of studies. In some of the forward Western countries, where compulsory elementary education had been in vogue for about a century and has already stepped up the intellectual urge of the masses considerably and where there are excellent arrangements for the initial training and periodical refresher courses for the workers in their respective arts and crafts, adult education is interpreted to mean only education in fundamental sciences, fine arts, literature, civics, and other cultural subjects ; and instruction in arts and crafts is excluded. This is all right in the level reached by the masses in those countries. We should not imitate their practices in the present state of our masses. We

* Post-Script to Edn. 3.

should go back to the practice of those countries a century ago for our model. The outline given above is on the lines of those models. It will be several years before we can adopt the present policy and practice of the Western countries.

3 Union College for Teachers of Adults

Hard thinking, ample finance, a broad-based start with the training of teachers, patience to wait till we have trained them, a well-thought-out-development plan, spread perhaps over several years, the machinery to assess from time to time if each stage of the plan is truly worked out, readiness to adjust the plan to the un-anticipated difficulties emerging from time to time — all these are necessary. Each constituent State should leave this development in the hands of a full-time Director. To overburden the Director of formal schools with this specialized branch of education will not prove effective. The Union Government too must have a special officer to co-ordinate the efforts in the different constituent States. Again it should be the responsibility of the Union Government to establish a Union Training College to produce the leaders of thought in adult education for supply to the constituent States. Some of the abler men trained in this College will have to take charge of the training colleges in the constituent States engaged in producing the teachers in the respective areas. The others trained in the Union College will have to be engaged as Directors and their understudies in the several constituent States. Research in the technique and curriculum of adult education will be another vital function of the Union Training College.

4 New Outlook and Industry

Mere pious resolutions, press communique, and journalistic noise at publicity level, indolence, narrow outlook, and wooden red-tape at the administrative level, and a perpetual fear and advance capitulation to the imagined turning down of proposals by the

Finance Department at the Secretariat level, can produce no result. We have not yet pulled ourselves out of this rut though it is some years since we got our independence. No doubt, the few statesmen at the top who can add zest to the work are pre-occupied with the acute political problems that have emerged. But should they not spare time to think of this for a while, look around, to locate a proper personality with zeal, vision, and faith in adult education work and give him the necessary power to implement a global scheme. What is the use of officers with their eyes in the back and not in the front? What is the benefit of multiplying Education Officers and Assistant Secretaries without end and adding to the agencies for gossip and obstruction? Our present organization is empty. A purging is necessary. A few men with faith in education with a proper sense of perspective, with vision, with drive, with undivided loyalty and single-minded devotion to the cause, and with abundant industry, should be put in charge of the direction. They should be trusted and given every help and encouragement if India is to energize its masses by adult education. Enlivening four hundred million people kept ignorant for a century is a colossal task. We cannot nibble at it. We cannot set about it in a small way. We cannot solve it by mere words or files. We can face it only by the practice of work-chastity, industry, and vision. May vision, industry, and work-chastity descend on those who are in charge of this colossal problem of adult education.

CHAPTER P

EPILOGUE

1 India's Heritage

11 MAITREYI

As women of India you have inherited a rich tradition. Till two centuries ago your ancestors had played a vital, active, and learned part in their lives. First an example from prehistoric Vedic period. Remember the spiritual height reached by Maitreyi, the life-partner of Yajna-vaalkya. Remember, the ease and equality with which she debated the deepest problems of life with her husband. Refresh your memory if need be, by a perusal of the Brahadaranyakopanishad. Perhaps you may also remind yourself of Gargi.

12 MRS SURESWARA

Then an example from historic medieval period. Let me remind you of the intellectual superiority, subtlety, and integrity of Sureswara's wife. Let me remind you also of the great Sankara. He was born in Kerala more than a thousand years ago. He was a typically progressive soul of India. He found many features of value in Buddhism. He decided to integrate them into Hinduism. Sanyasi order was one of them. He himself became a Sanyasi. There was perhaps no sanction for this in the way in which Vedic religion was then practised. He held many other progressive views. He had enriched Hindu thought and practices by a judicious synthesis with much of alien origin. Naturally this provoked opposition from the conservatives. Varanasi was then their chief centre; and Sureswara was reputed to be the most formidable among them. Sankara, therefore, went to Varanasi to debate it out with Sureswara finally. They were both intellectual giants. They were head and shoulders above everybody else, in their knowledge of literature, in the

sharpness of their intellect, and in their dialectical skill. Who could be the presiding judge over their debate? They could only think of Mrs Sureswara! And she gladly consented. Scholars had assembled from north, east, west, and south. The audience swelled from day to day. The debate prolonged over several days. One of the chief points in debate was the sanction for sanyasa. The understanding between the debaters was interesting. If Sankara failed, he should give up sanyasa and marry; and if Surewara failed, he should give up family life and become a sanyasi — not a pleasant contingency for Mrs Sureswara. The debate became subtler and subtler as days rolled on. Many could not even follow, and yet they stayed on caught up in amazement. The presiding lady did not show the slightest flagging. The debate was concluded. Judgment was awaited. There was pin drop silence. Few among the audience could anticipate the judgment. Their faces showed that the debate had long ago gone above their head. But Mrs Sureswara's face was beaming with the certitude of her mastery of the situation. The lady stood up. She could command the sense of humour to announce her judgment in the form of the significant invitation: "Both the sanyasis may condescend to dine in my house".

13 MRS RATNAKETI DIKSHITA

One example from recent times. Let me next narrate to you the poetic powers of a lady who lived in the South two centuries ago. A galaxy of learned men were then living at Tiruvasalure. Ratnaketi Dikshita was one of them. Some scholar from distant South came to the place to enroll himself as a student of the Dikshita. He reached the place in the early hours of morning twilight. Ladies were busy cleaning and decorating the pavement. He asked one of them for the professor's house. She was sprinkling water in front of her house. The reply came forth from her in melodious, flawless, and facile verse keeping rhythm with the physical act of sprinkling, that the lady who

was answering had the good fortune to be the life-partner of that prince among scholars.

2 Significant Tradition

That is the tradition of the womanhood of India. If the cynics of your place scoff at your venturing into this field of social work and adult education, remind them of your heritage. Tell them that there is nothing exotic in your pursuing the path of learning and that it is not without significance that the Indian tradition symbolizes learning and progress as manifestations of God in the female forms of Saraswati and Lakshmi.

3 Put them at Ease

It is only during the short spell of seven or eight generations that you have lagged behind and fallen into a stupor. You belong to the first generation that has begun to wake up and recover. You must soon help your sisters to wake up too. But let not the fact that you have revived earlier fill you with pride, invest you with an air of superiority, or make you develop a condescending attitude towards the adults whom you intend to wake up. The least touch of it is enough to scare away the adults from you. Remember ; They are very sensitive. Remember ; It will defeat the very mission of your life. Humility of a loving learned soul will never be mistaken for incompetence by people. You need not desert humility or HRI (which word expresses the quality more exactly) on account of such a fear. You should not make the adults feel that they have to run at your heels. You must put them at ease. This is quality number one, that you must develop to succeed in your work.

4 Restoration of Hri

Recall some of the things that we discussed on the day we considered literacy. There is much that you have to learn from some of the old illiterate folk in your place. They are the repository of certain sound practices and useful lore which centuries of trial and error have

stabilized as the best. Your generation lives at the parting of two different cultural epochs. It is ignorant of them. That fact at least must prop you up towards HRI when you are threatened to be carried off your feet at moments when your superior knowledge in certain other respects begins to disturb your composure.

5 Reciprocity or Teaching

Remember another most important thing. Every learned person should remember and practise it. Remember ; You will owe the furtherance of your own education as much to the students as they will owe theirs to you. Remember ; Education is reciprocal whatever be the difference in the level between the teacher and the taught.

51 PERSONAL TESTIMONY

Let me illustrate with our own position today. I am older than any of you. I have read more books than any of you. I have travelled more widely than any of you. I have devoted far more thought than any of you to the subject I have been discussing with you all these days. Your Commandant asked me to take charge of discussing it with you on that ground. But still don't for a moment believe that all learning in this room flowed all these days in one direction. I am not feigning humility ; I am not playing a trickery on you ; I am not exaggerating in the least, when I say that I am all the richer for having discussed this subject with you. Several dark regions in my understanding of the subject got lighted up by your reaction, by your questions, by the changes in your facial expression, and by your influence, collective and several.

I have derived this reciprocal benefit from each of the batches of students with whom I have spent more or less time, during the last twenty-seven years. The older I grow, the wider becomes the gap between my maturity and that of the students. And yet believe me the amount of help I derive from the students for my education is increasing and not waning. I have been

teaching, for example, library classification for the last sixteen years. I have written three fundamental books on the subject. And yet, I learnt much from this year's students who are absolutely raw recruits. Does this appear to be paradoxical to you? But this is what all teachers have realized from time immemorial.

52 VEDIC TESTIMONY

This self-educational effect of teaching has been well emphasized by the Upanishadic seers. According to them four stages can be recognized in education :—

- 1 Adhiti (learning) ;
- 2 Bodha (understanding) ;
- 3 Acharana (practice) ; and
- 4 Pracharana (teaching) ;

One's education is not complete till the last has been lived.

Wherever your HRI is threatened to be smothered by superior air, remind yourself of this Upanishadic analysis and remember that you are as much learning in the class-room as your adult students. I have dwelt so much on this because of the severe handicap you will have in that your being younger in age than the adults of the class may easily reach your head.

6 Innate Urge

Again, remember, what we saw about the process of education when we examined it in detail. The urge for education is innate in everybody. Each one has to unfold himself by himself into his fullest personality. Our part is only the one of a helper. Sri Ramakrishna has put it in his inimitable way. The gardener can only supply the manure and the water to the plant. The growing has to be done by the plant itself. The gardener is not superior to the plant in effecting the growth of the plant.

7 Ramayana's Precept

Our premier poet Valmiki has in more than one place in the *Ramayana* defined delightfully the spirit in which you should help the adults in your class. Learn it from the exquisite words spoken by Sita to Rama : " I do not instruct, I only remind you out of my love and regard for you ".[33]

स्मारयामि न शिक्षये स्नेहाच्च अभिमानाच्च ।

The same attitude is prescribed by a modern poet. Townshend would ask you to develop the geniality which will make the adults feel that you are only saying :

" Take my hand : For I have passed this way.
And Know the truth ".[34]

8 Rig Veda's Precept

You have the unique privilege, let me repeat, of having been chosen as pioneers in the grand social service campaign initiated by the Government Order. It is pregnant with possibilities of considerable social value. You have, further, the good fortune of having full sympathy, active help, and thrilling inspiration from Lady Hope. But for her personal interest and burning zeal, Madras could not lead in this matter in the way it has now begun to do. Your work will make better men and women of our people. It will revive our society. It will help our motherland to stand erect among the nations of the world. Your educational work will help the unfoldment of the personality of each individual to its very best. It will also further the due fulfilment of the group, the nation, and the society at large. It will enable each to become himself and to realize and live the truth that one's " becoming " is best when it is with the " becoming " of all together. Revive then among all our folk, the sense of " becoming " in unison, singing the song of our ancestors of the Rig Vedic Age.

Meet together, talk together, understand aright.

CHAPTER Q

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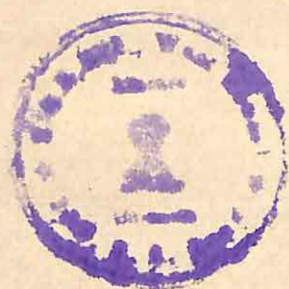
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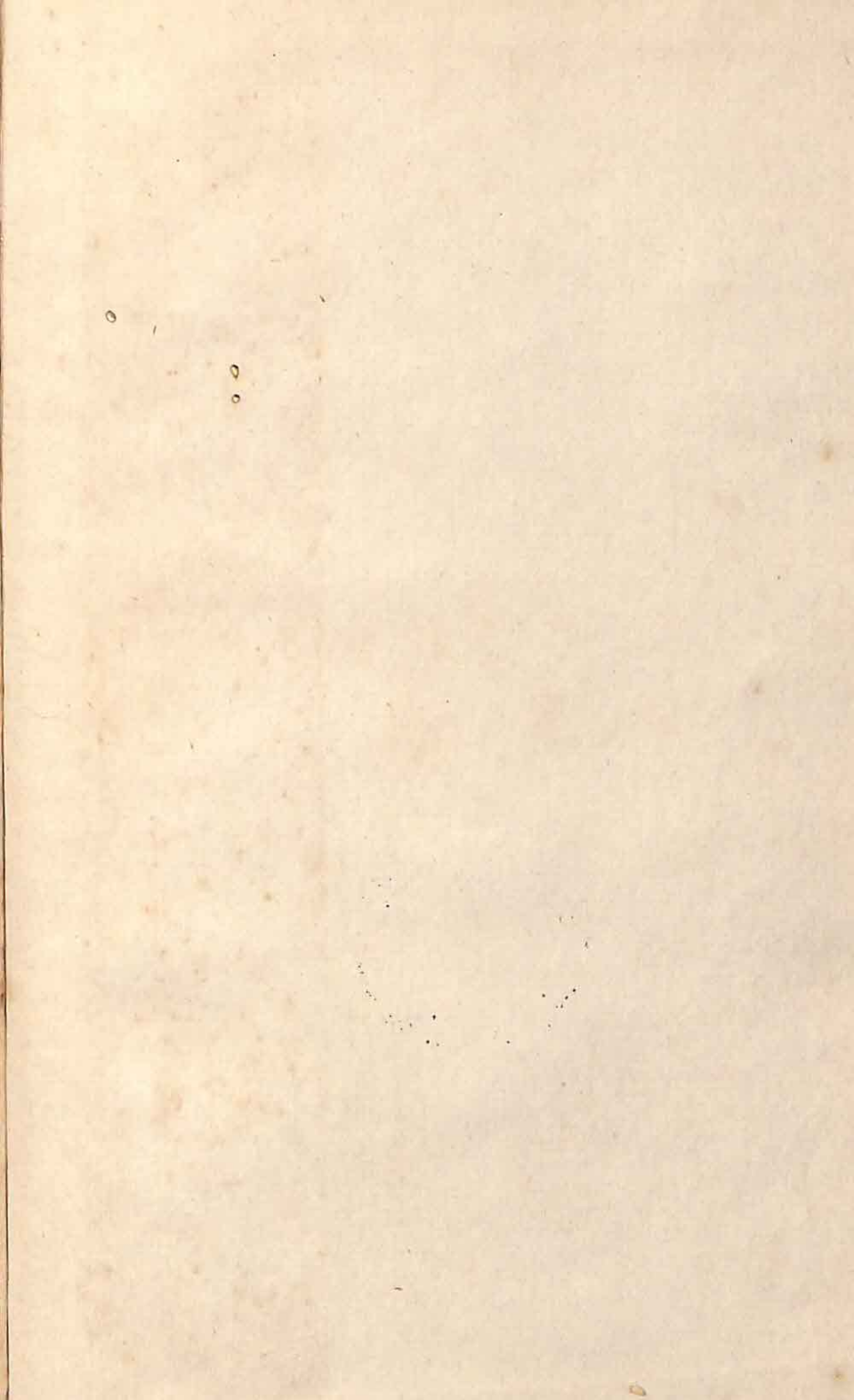
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A TEACHER of Library Science for over thirty years, Dr Ranganathan is the author of fifty books on the subject. Successively Professor of Library Science at the Universities of Madras, Banaras, Delhi and Ujjain he has also taught in many library schools in Great Britain, the United States, Canada and Japan.

As Bernard I. Palmer says, "He has a powerful analytical mind, and approaches every problem with an unbiased critical attitude I would go so far as placing him among the 'immortals' of our profession." Dr Ranganathan's works have revolutionized world-thought on classification and lifted the discipline of librarianship for the first time to the level of science.

He is Member of the International Committee of Library Experts of the United Nations and the International Bibliographical Committee of UNESCO; Member of Honour and Vice-President of the International Federation of Documentation; Rapporteur-General of the Committee on General Theory of Classification of the International Federation for Documentation; Chairman of the Library Committee of the University Grants Commission, the Documentation Committee and the Library Buildings Committee of the Indian Standards Institution, and the Classification Committee of India.

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